[MS-PPSAS]:

PerformancePoint Services Authoring Service Protocol

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1 Introduction

The PerformancePoint Authoring Services Protocol is a Web service protocol that is used to read from, write to, and perform basic operations on a visual interface displaying related views hosted on a server.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

1.1 Glossary

This document uses the following terms:

Analysis Services: The abbreviated name for Microsoft SQL Server Analysis Services, which is used to create and maintain multidimensional data that is sent to client applications in response to queries. Also referred to as Online Analytical Processing (OLAP) server.

attribute hierarchy: A single-level **hierarchy** that uses only an attribute or a column from a source, back-end relational database as its hierarchy. An attribute hierarchy typically has the same name as the attribute and is always associated with the attribute on which it is based. An all-level member can optionally be enabled for an attribute hierarchy. See also OLAP hierarchy.

AutoFilter: A mechanism that can be used to filter tabular data based on user-defined criteria such as values, strings, and formatting.

average weighted value: A type of **rollup** value. It indicates an average that factors the weighted value of all of the child values that are contained within it.

banding: A process and collection of settings that are used to define thresholds or boundaries between changes in indicator statuses. See also column banding and row banding.

base64 encoding: A binary-to-text encoding scheme whereby an arbitrary sequence of bytes is converted to a sequence of printable ASCII characters, as described in [RFC4648].

cell: A box that is formed by the intersection of a row and a column in a worksheet or a table. A cell can contain numbers, strings, and formulas, and various formats can be applied to that data.

child: An object that is immediately below the current object in a hierarchy.

context site: A site that corresponds to the context of the current request.

cube: A set of data that is organized and summarized into a multidimensional structure that is defined by a set of **dimensions** and **measures**.

current user: The user who is authenticated during processing operations on a front-end web server or a back-end database server.

current version: The latest version of a document that is available to a user, based on the permissions of the user and the publishing level of the document.

dashboard: A visual interface that displays a related group of interactive scorecard and report views. It provides views into key measures that are relevant to a business practice or process. Dashboard elements provide capabilities, such as shared filters, that enable users to perform tasks such as highlighting trends, comparing data, and controlling the data that is displayed.

data point: An individual value that is plotted in a chart and is represented together with other data points by bars, columns, lines, pie or doughnut slices, dots, and various other shapes, which are referred to as data markers. Data markers of the same color constitute a data series.

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data source: (1) A database, web service, disk, file, or other collection of information from which data is queried or submitted. Supported data sources vary based on application and data provider.

(2) A specified data source type, connection string, and credentials, which can be saved separately to a report server and shared among report projects or embedded in a report definition (.rdl) file.

default member: The dimension member that is used in a query if a member is not specified for the dimension.

descendant: A member that is below the current member in a hierarchy.

deserialize: See unmarshal.

dimension: A structural attribute of a cube, which is an organized hierarchy of categories (levels) that describe data in a fact table. These categories typically describe a similar set of members upon which the user bases an analysis.

display folder: A folder into which attributes, measures, calculated members, and key performance indicators can be organized to facilitate browsing.

document library: A type of list that is a container for documents and folders.

drilldown: A technique that is used to navigate hierarchical data, starting from general data and moving to increasingly finer levels of detail.

fact: A row in a table that contains numerical measures and keys, and associates specific facts with dimension tables, which are referred to as fact tables. A fact contains values that define a data event, such as a sales transaction.

feature: A package of SharePoint elements that can be activated or deactivated for a specific feature scope.

filter: A mechanism by which a set of data is scoped to display only those entries that meet specified logical criteria.

formula: A logical equation or function that produces a result in a spreadsheet application.

globally unique identifier (GUID): A term used interchangeably with universally unique identifier (UUID) in Microsoft protocol technical documents (TDs). Interchanging the usage of these terms does not imply or require a specific algorithm or mechanism to generate the value. Specifically, the use of this term does not imply or require that the algorithms described in [RFC4122] or [C706] must be used for generating the **GUID**. See also universally unique identifier (UUID).

hierarchy: A logical tree structure that organizes the members of a dimension such that each member has one parent member and zero or more child members.

hyperlink: A relationship between two anchors, as described in [RFC1866].

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol Secure (HTTPS): An extension of HTTP that securely encrypts and decrypts web page requests. In some older protocols, "Hypertext Transfer Protocol over Secure Sockets Layer" is still used (Secure Sockets Layer has been deprecated). For more information, see [SSL3] and [RFC5246].

item: A unit of content that can be indexed and searched by a search application.

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key performance indicator (KPI): A predefined measure that is used to track performance against a strategic goal, objective, plan, initiative, or business process. A visual cue is frequently used to communicate performance against the measure.

level: A relative position in a hierarchy of data. A level is frequently used when describing how to navigate a hierarchy in an Online Analytical Processing (OLAP) database or a PivotTable report.

list: (1) A container within a SharePoint site that stores list items. A list has a customizable schema that is composed of one or more fields.

(2) An organization of a region of cells into a tabular structure in a workbook.

list item: An individual entry within a SharePoint list. Each list item has a schema that maps to fields in the list that contains the item, depending on the content type of the item.

login name: A string that is used to identify a user or entity to an operating system, directory service, or distributed system. For example, in Windows-integrated authentication, a login name uses the form "DOMAIN\username".

major version: An iteration of a software component, document, or list item that is ready for a larger group to see, or has changed significantly from the previous major version. For an item on a SharePoint site, the minor version is always "0" (zero) for a major version.

master page: An ASP.NET file that has a predefined layout that can include static text, HTML elements, and server controls.

MD5: A one-way, 128-bit hashing scheme that was developed by RSA Data Security, Inc., as described in [RFC1321].

measure: In a cube, a set of values that are typically numeric and are based on a column in the fact table of the cube. Measures are the central values that are aggregated and analyzed.

measure group: A collection of related **measures** in a **cube** that derive from a single fact table, typically in a data source view.

member: (1) A user in the Members group of a site.

(2) See OLAP member.

Multidimensional Expressions (MDX): A syntax that is used for defining multidimensional objects, and for querying and manipulating multidimensional data.

named set: A grouping of dimension members or items from a data source or a set expression that is named and treated as a single unit and that can be referenced or reused multiple times.

normalized: In relational database design, the movement of data toward its optimized state, typically third normal form, to avoid redundancy and inconsistency and to promote efficient maintenance and storage of that data.

object: A set of attributes, each with its associated values. Two attributes of an object have special significance: an identifying attribute and a parent-identifying attribute. An identifying attribute is a designated single-valued attribute that appears on every object; the value of this attribute identifies the object. For the set of objects in a replica, the values of the identifying attribute are distinct. A parent-identifying attribute is a designated single-valued attribute that appears on every object; the value of this attribute identifies the object's parent. That is, this attribute contains the value of the parent's identifying attribute, or a reserved value identifying no object. For the set of objects in a replica, the values of this parent-identifying attribute define a tree with objects as vertices and child-parent references as directed edges with the **child** as an edge's tail and the parent as an edge's head. Note that an object is a value, not a variable; a replica is a variable. The process of adding, modifying, or deleting an object in a replica replaces the entire value of the replica with a new value. As the word replica suggests, it is often the

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case that two replicas contain "the same objects". In this usage, objects in two replicas are considered the same if they have the same value of the identifying attribute and if there is a process in place (replication) to converge the values of the remaining attributes. When the members of a set of replicas are considered to be the same, it is common to say "an object" as shorthand referring to the set of corresponding objects in the replicas.

objective KPI: A type of **key performance indicator (KPI)** that derives its target value and score from a rollup of the child KPIs that are contained within it.

OLAP calculated member: An OLAP member whose value is calculated at run time.

Online Analytical Processing (OLAP): A technology that uses multidimensional structures to provide access to data for analysis. The source data for OLAP is stored in data warehouses in a relational database. See also **cube**.

PivotChart report: A chart that uses a PivotCache for source data and inherits filtering and sorting functionality from a PivotTable report.

PivotTable: An interactive table that summarizes large amounts of data from various sources by using format and calculation methods. Row and column headings can be rotated to view different summaries of the source data, filter the data, or display detail data for specific areas.

pixel: A discrete unit of display on a computer display device.

Portable Network Graphics (PNG): A bitmap graphics file format that uses lossless data compression and supports variable transparency of images (alpha channels) and control of image brightness on different computers (gamma correction). PNG-format files have a .png file name extension.

published item: A specific named object that is in a published workbook.

query: A formalized instruction to a data source to either extract data or perform a specified action. A query can be in the form of a query expression, a method-based query, or a combination of the two. The data source can be in different forms, such as a relational database, **XML document**, or in-memory object. See also search query.

report: A database object that provides a static representation of a set of data and can be used to group, sort, summarize, and aggregate data. The data in a report cannot be edited.

report view: An object that is used to display data in a **dashboard**. It can be coordinated with other report views by using filters. Examples of report views include analytic grids and charts, PivotTable reports, strategy maps, trend charts, and webpages.

rollup: A type of calculated value that is derived from the aggregated scores of child or descendant key performance indicators (KPIs) in a **scorecard**.

score: A measurement of how accurately an analysis model predicts new data. It can be used to measure the effectiveness of an analysis model by adjusting various values in the model.

scorecard: A report that depicts organizational and business performance by displaying a collection of **key performance indicators (KPIs)** with performance targets for those KPIs. Each KPI compares actual performance to goals for an area. A scorecard can be organized hierarchically and typically contains visualization tools such as trend charts and conditional formatting.

Secure Sockets Layer (SSL): A security protocol that supports confidentiality and integrity of messages in client and server applications that communicate over open networks. SSL supports server and, optionally, client authentication using X.509 certificates [X509] and [RFC5280]. SSL is superseded by Transport Layer Security (TLS). TLS version 1.0 is based on SSL version 3.0 [SSL3].

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security zone: A setting that determines whether a resource, such as a website, can access data on other domains, or access files and settings on a user's computer. There are four security zones: Internet, Local intranet, Trusted sites, and Restricted sites. The zone to which a resource is assigned specifies the security settings that are used for that resource. See also form security level.

server: (1) A computer on which the remote procedure call (RPC) server is executing.

(2) A replicating machine that sends replicated files to a partner (client). The term "server" refers to the machine acting in response to requests from partners that want to receive replicated files.

server-relative URL: A relative URL that does not specify a scheme or host, and assumes a base URI of the root of the host, as described in [RFC3986].

Simple Time Period Specification (STPS): A language and syntax that can be used to define time-based expressions, such as offsets from a specific date or the current date.

site: (1) A group of related webpages that is hosted by a server on the World Wide Web or an intranet. Each website has its own entry points, metadata, administration settings, and workflows. Also referred to as web site.

(2) A group of related pages and data within a SharePoint site collection. The structure and content of a site is based on a site definition. Also referred to as SharePoint site and web site.

site collection: A set of websites that are in the same content database, have the same owner, and share administration settings. A site collection can be identified by a **GUID** or the **URL** of the top-level site for the site collection. Each site collection contains a top-level site, can contain one or more subsites, and can have a shared navigational structure.

slice: A subset of the data in a cube. It is specified by limiting one or more dimensions based on members of those dimensions.

slicer: A mechanism that is used to filter data in one or more PivotTable reports or cube functions.

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [SOAP1.2-1/2003].

SOAP action: The HTTP request header field used to indicate the intent of the **SOAP** request, using a URI value. See [SOAP1.1] section 6.1.1 for more information.

SOAP body: A container for the payload data being delivered by a SOAP message to its recipient. See [SOAP1.2-1/2007] section 5.3 for more information.

SOAP fault: A container for error and status information within a SOAP message. See [SOAP1.2-1/2007] section 5.4 for more information.

SOAP fault detail: A string containing a human-readable explanation of a **SOAP fault**, which is not intended for algorithmic processing. See [SOAP1.2-1/2007] section 5.4.5 for more information.

strategy map: A performance management tool that is used to visually present objectives and goals, groupings of objectives and goals, and mappings of objectives and goals to themes, initiatives, key performance indicators (KPIs), targets, business processes, and action plans.

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subsite: A complete website that is stored in a named subdirectory of another website. The parent website can be the top-level site of a site collection or another subsite. Also referred to as subweb.

target: An actor to which a task is assigned.

target application: A logical entity that represents a software system for which credentials are maintained. It consists of metadata including the number and type of credentials that are required by the software system and a set of claims that identify the administrators who can update, read, and delete the entity.

time intelligence: A type of computation that is used to update data automatically, relative to the current time, in scorecards and reports.

ToolTip: A small pop-up window that provides brief context-sensitive help when users point to an item. Also referred to as ScreenTip.

transform: An operation that is performed on data to change it from one form to another. Two examples of transforms are compression and encryption.

trusted location: A directory with properties that indicate how an application processes documents.

tuple: An ordered grouping of members from different dimensions or hierarchies. A single member is a special case of a tuple and can be used as an expression. Every hierarchy does not have to be represented in a tuple.

UI culture: The language that is used to display strings and graphical elements in a user interface.

Unified Modeling Language (UML): A language that can be used to specify, build, and document software and other systems, such as business models.

Uniform Resource Locator (URL): A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [RFC1738].

UTF-8: A byte-oriented standard for encoding Unicode characters, defined in the Unicode standard. Unless specified otherwise, this term refers to the UTF-8 encoding form specified in [UNICODE5.0.0/2007] section 3.9.

Web Part: A reusable component that contains or generates web-based content such as XML, HTML, and scripting code. It has a standard property schema and displays that content in a cohesive unit on a webpage. See also Web Parts Page.

Web Services Description Language (WSDL): An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

whitespace: A character that can be found between words, including a space (" "), a carriage return in combination with a line feed (newline), and a tab character.

workbook: A container for a collection of sheets.

WSDL message: An abstract, typed definition of the data that is communicated during a **WSDL operation** [WSDL]. Also, an element that describes the data being exchanged between web service providers and clients.

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WSDL operation: A single action or function of a web service. The execution of a WSDL operation typically requires the exchange of messages between the service requestor and the service provider.

XML document: A document object that is well formed, as described in [XML10/5], and might be valid. An XML document has a logical structure that is composed of declarations, elements, comments, character references, and processing instructions. It also has a physical structure that is composed of entities, starting with the root, or document, entity.

XML namespace: A collection of names that is used to identify elements, types, and attributes in XML documents identified in a URI reference [RFC3986]. A combination of XML namespace and local name allows XML documents to use elements, types, and attributes that have the same names but come from different sources. For more information, see [XMLNS-2ED].

XML namespace prefix: An abbreviated form of an **XML namespace**, as described in [XML].

XML schema: A description of a type of **XML document** that is typically expressed in terms of constraints on the structure and content of documents of that type, in addition to the basic syntax constraints that are imposed by XML itself. An XML schema provides a view of a document type at a relatively high level of abstraction.

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as defined in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the Errata.

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[MS-DSDIFFGRAM] Microsoft Corporation, "SharePoint Web Services: DataSet DiffGram Structure".

[MS-ESP] Microsoft Corporation, "Excel Web Services Protocol".

[MS-NRBF] Microsoft Corporation, ".NET Remoting: Binary Format Data Structure".

[MS-PRIMEPF] Microsoft Corporation, "Deployment Package Format".

[MS-SSAS] Microsoft Corporation, "SQL Server Analysis Services Protocol".

[MS-SSWPS] Microsoft Corporation, "Secure Store Web Service Protocol".

[MS-VGSFF] Microsoft Corporation, "Visio Graphics Service (.vdw) File Format".

[MS-XLSX] Microsoft Corporation, "Excel (.xlsx) Extensions to the Office Open XML SpreadsheetML File Format".

[MS-XLS] Microsoft Corporation, "Excel Binary File Format (.xls) Structure".

[RFC1738] Berners-Lee, T., Masinter, L., and McCahill, M., Eds., "Uniform Resource Locators (URL)", RFC 1738, December 1994, http://www.rfc-editor.org/rfc/rfc1738.txt

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[RFC1808] Fielding, R., "Relative Uniform Resource Locators", RFC 1808, June 1995, http://www.rfc-editor.org/rfc/rfc1808.txt

[RFC1952] Deutsch, P., "GZIP file format specification version 4.3", RFC 1952, May 1996, http://www.rfc-editor.org/rfc/rfc1952.txt

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.rfc-editor.org/rfc/rfc2119.txt

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, http://www.rfc-editor.org/rfc/rfc2616.txt

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part1-20030624

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part2-20030624

[UNICODE] The Unicode Consortium, "The Unicode Consortium Home Page", http://www.unicode.org/

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, http://www.w3.org/TR/2001/NOTE-wsdl-20010315

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, http://www.w3.org/TR/2009/REC-xml-names-20091208/

[XMLSCHEMA1/2] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures Second Edition", W3C Recommendation, October 2004, http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/

[XMLSCHEMA2/2] Biron, P., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes Second Edition", W3C Recommendation, October 2004, http://www.w3.org/TR/2004/REC-xmlschema-2-20041028/

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/

1.2.2 Informative References

[DataTable] Microsoft Corporation, "DataTable Class", http://msdn.microsoft.com/en-us/library/system.data.datatable.aspx

[MSDN-Axis] Microsoft Corporation, "Axis (MDX) Function", http://msdn.microsoft.com/en-us/library/ms145531.aspx

[MSFT-ConnectionFormula] Microsoft Corporation, "Use the Connection Formula dialog box to configure a filter connection", TechNet Library, http://technet.microsoft.com/en-us/library/ff535788(office.14).aspx

[MSFT-TimeIntelligence] Microsoft Corporation, "About syntax for Time Intelligence expressions", https://support.office.com/en-in/article/About-syntax-for-Time-Intelligence-expressions-9d089136-7f1b-43ed-954c-f14ce31a0cb1

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1.3 Overview

Dashboard platforms typically support workflow whereby a user creates and publishes content representing the various parts that make up **dashboards**, such as indicators, scorecards, reports in a variety of forms, and data source references. This content is composed of metadata (such as names of **dimensions** or measures, or the names of data source references), calculation definitions, and formatting information (such as color or layout.)

This protocol enables a protocol client to:

- Create, read, update, validate and delete a variety of dashboard content in a content store. The types and sub-types of content were summarized previously, and described in detail by Common Message Syntax (section 2.)
- Create, read, update, and delete annotations in an annotation store.
- Retrieve metadata, such as the names of dimensions or measures, via data source references.
- Retrieve data sets via data source references.
- Retrieve a listing of content sub-types and component information from a configuration store.

A typical scenario for using this protocol is an extensible editing application that enables users to create, publish and maintain some of the content used in a larger dashboard rendering system.

1.4 Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [SOAP1.1], [SOAP1.2/1] and [SOAP1.2/2]. It transmits those messages by using **HTTP**, as described in [RFC2616], or **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as described in [RFC2818].

The following diagram shows the underlying messaging and transport stack used by the protocol:

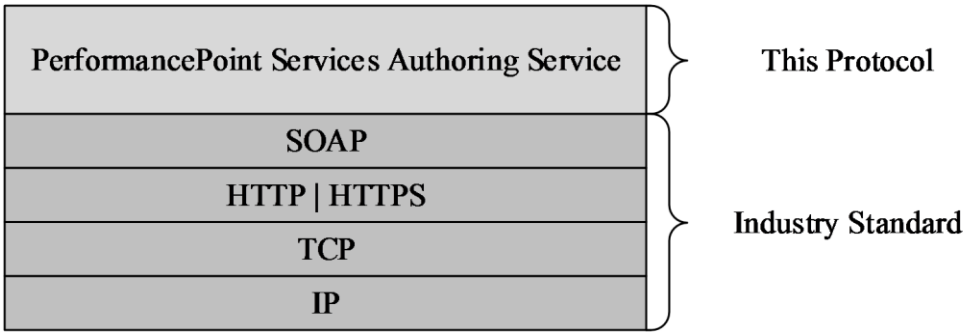


Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a site that is identified by a **URL** that is known by protocol clients. The **server (2)** endpoint is formed by appending "_vti_bin/pps/ppsauthoringservice.asmx" to the URL or the site, as in http://www.contoso.com/_vti_bin/pps/ppsauthoringservice.asmx, for example.

This protocol assumes that authentication has been performed by the underlying protocols.

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1.6 Applicability Statement

This protocol enables communication between a **server (2)** that stores **dashboard** logic definitions and a protocol client which presents a user interface to author them.

This protocol is typically used to build dashboard editing applications. Other typical usages are limited to:

- Publishing a scorecard and retrieving the GridViewData for a scorecard so that the data can be rendered in an alternative fashion, such as for a mobile device (see section 3.1.4.19).
- Creating and testing data source definitions (including retrieving test data sets) to check that the data source is configured correctly for used in the separate construction of scorecards or dashboards.

This protocol is intended for use by protocol clients connected by high-bandwidth, low-latency network connections, because of the complexity of some of the types used in the protocol and the typically large amount of metadata associated with data sources used in dashboards.

This protocol is not intended as a pass-through to query and receive data sets from back end data sources, except in service of the typical uses described previously.

Although the protocol does not require data source metadata references be acquired using the protocol (for example, publish scorecard content containing member names that were not acquired using the protocol) the protocol does not provide for discrete validation of metadata, so appropriate and typical use is using only this protocol to acquire metadata references (for example, retrieve member names using this protocol to create scorecard content then publish that content using the protocol.)

Although the server (2) does return authentication information (for example authenticated user name), it is not intended as an authentication protocol.

Although this protocol does provide content type extensibility, to the extent that any content for any purpose could be published via the protocol, it is not intended for publishing content other than that which makes up a dashboard.

1.7 Versioning and Capability Negotiation

In addition to specifying versioning issues in the following areas, this protocol does not provide specific mechanisms to handle versioning and capability negotiation other than what's provided by the standard **SOAP** [SOAP1.1] protocol:

- **Supported Transports:** This protocol uses multiple transports with SOAP as described in section Transport (see section 2.1)
- **Security and Authentication Methods:** The security and authentication methods supported by this protocol are described in section Security (see section 5).
- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are described in sections Common Message Syntax (see section 2.2) and Message Processing Events and Sequencing Rules (see section 3.1.4).

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

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2 Messages

Occasionally, instances occur where this web service's **Web Services Description Language (WSDL)** specifies optionality (for example, minOccurs="0" and maxOccurs="1") that conflicts with the stated behavior in this document, or the document doesn't contain the stated behavior. In such cases where the document and the WSDL conflict, the document takes precedence. In cases where the document doesn't specify optionality, the argument has to be present, even if the WSDL specifies that the argument is optional (for example, minOccurs="0").

In cases where an argument is optional and the WSDL specifies both "minOccurs=0" and "Nillable=true", treat the argument as only "minOccurs=0".

2.1 Transport

Servers (1) MUST support **SOAP** over **HTTP**. Servers (1) SHOULD also support SOAP over **HTTPS** to provide secure communication between protocol clients and servers (1).

Protocol messages MUST be formatted as specified either in [SOAP1.1], section 4 or in [SOAP1.2/1], section 5. Server faults MUST be returned either using HTTP Status Codes as specified in [RFC2616], section 10 or using **SOAP faults** as specified in [SOAP1.1], section 4.4. The version of the SOAP fault returned MUST correspond to the version of SOAP used for the request **WSDL message**

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as specified in [XMLSCHEMA1/2] and [XMLSCHEMA2/2], and **WSDL**, as specified in [WSDL].

2.2.1 Namespaces

This specification defines and references various **XML namespaces** using the mechanisms specified in [XMLNS]. Although this specification associates a specific **XML namespace prefix** for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
http	http://schemas.xmlsoap.org/wsdl/http/	
qdata	http://performancepoint.microsoft.com/OLAPQueryData	
query	http://schemas.microsoft.com/performancepoint/2007/03/query	
s1	http://microsoft.com/wsdl/types/	
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2/1] [SOAP1.2/2]
tns	http://www.microsoft.com/performancepoint/scorecards	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1/2] [XMLSCHEMA2/2]

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2.2.2 Messages

The following table summarizes common **WSDL messages** defined by this specification.

Message	Description
SOAP fault	The operations defined in section 3.1.4 return a **SOAP fault** as specified in section 2.2.2.1.

This specification does not define any common WSDL message definitions.

2.2.2.1 Faults

In the event of an application error, the **server (2)** returns a **SOAP fault** as a response to the operation as specified in [SOAP1.1] section 4.4.

2.2.2.1.1 SOAP Fault Detail Element

The protocol client MUST ignore all elements of the **SOAP fault**, except for the **SOAP fault detail** element.

The SOAP fault detail element MUST contain a **BpmException** (2.2.4.61).

2.2.2.1.2 Full List of Possible Error Codes

In the event of an application error, the **server (2)** MUST return one of these values in the **ErrorCode** element of the **BpmException** (2.2.4.61), as specified in section 2.2.2.1.1.

The protocol client MUST NOT perform any logical operation on the value of the **ErrorCode**, unless it appears in section 2.2.2.1.3 or is explicitly specified for a message in section 3.1.4.

Error code	Description
AnnotationDeleteNotEnabled	Deletion of scorecard annotations is not enabled.
AnnotationNotEnabled	Scorecard annotations are not enabled.
BIMonitoringApplicationProxyNotFound	The server (2) is not configured properly or is not functioning correctly.
BIMonitoringApplicationProxyThreadAborted	The request has timed out or has been aborted.
BIMonitoringApplicationUnavailable	The server (2) is not configured properly or is not functioning correctly.
CannotGetWindowsIdentity	The server (2) is not configured properly or is not functioning correctly.
CannotGetWindowsIdentityForNonWindowsClaim	The server (2) cannot locate credentials for the user.
CannotPublishReadOnlyElement	The publish event of a read only element was aborted.
CreateReturnedNull	The server (2) is not configured properly or is not functioning correctly.

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Error code	Description
DatabaseConnectionFailed	The server (2) is not configured properly or is not functioning correctly.
DataSourceConnectionFailed	See section 2.2.2.1.3.
DataSourceConnectionUnsupported	See section 2.2.2.1.3.
DataSourceCubeNotFound	The user does not have access to the **cube** specified by a DataSource (section 2.2.4.85) or the cube does not exist
DataSourceDatabaseNotFound	See section 2.2.2.1.3.
DataSourceHostNotFound	See section 2.2.2.1.3.
DataSourceNotRegistered	The server (2) is not configured properly or is not functioning correctly.
DataSourceProviderMessage	An error occurred in a data source.
ErrorCode_InvalidNameInfo	An attribute of a NameInfo (section 2.2.4.149) is invalid.
ExtInvalidSetting	A value for setting on the server (2) is invalid.
FCOCreateFailed	See section 2.2.2.1.3.
FCOCreateFailedListAccess	See section 2.2.2.1.3.
FCOCreateFailedListType	See section 2.2.2.1.3.
FCOCreateFailedNameCollision	See section 2.2.2.1.3.
FCODeleteFailed	See section 2.2.2.1.3.
FCODeleteFailedListAccess	See section 2.2.2.1.3.
FCOReadFailed	See section 2.2.2.1.3.
FCOReadFailedListAccess	See section 2.2.2.1.3.
FCOUpdateFailed	See section 2.2.2.1.3.
FCOUpdateFailedListAccess	See section 2.2.2.1.3.
FCOUpdateFailedListType	See section 2.2.2.1.3.
FCOUpdateFailedNameCollision	See section 2.2.2.1.3.
ImpersonationLoginFailure	The shared account credentials are not available.
ImportAsKpisException	An error occurred while importing a **KPI** from **Analysis Services**.
IncompatibleSiteDomain	The server (2) is not configured properly or is not functioning correctly.
InvalidAdomdDataSource	An attribute of an Analysis Services **DataSource** (section 2.2.4.85) is not valid.
InvalidAliasName	The **AliasName** attribute of a NameInfo (section 2.2.4.13) is invalid.

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Error code	Description
InvalidAnnotation	An attribute of an Annotation (section 2.2.4.18) is invalid.
InvalidBpmPropertyHyperlink	A **FirstClassElement** (section 2.2.4.99) contains an invalid hyperlink property
InvalidBpmPropertyList	An attribute of a BpmPropertyList (section 2.2.4.69) is invalid.
InvalidBpmPropertyText	An attribute of a **BpmPropertyText** (section 2.2.4.72) is invalid.
InvalidBuiltinIndicatorOperation	See section 2.2.2.1.3.
InvalidCategoryName	See section 2.2.2.1.3.
InvalidCharacters	The **UniqueName** of a **BpmProperty** (section 2.2.4.62) contains invalid characters.
InvalidComment	An attribute of an **Comment** (section 2.2.4.76) is invalid
InvalidConnectionString	Unable to connect to an Analysis Services data source.
InvalidDataSource	See section 2.2.2.1.3.
InvalidDefaultMemberName	The **DefaultMemberName** attribute of a Dimension (section 2.2.4.90) is invalid.
InvalidElement	See section 2.2.2.1.3.
InvalidElementField	See section 2.2.2.1.3.
InvalidEndPoint	An attribute of an **EndPoint** (section 2.2.4.95) is invalid.
InvalidFirstClassElementField	See section 2.2.2.1.3.
InvalidId	A KPI or **scorecard** is missing or not available to the **current user**.
InvalidIndicator	See section 2.2.2.1.3.
InvalidIndicatorBand	See section 2.2.2.1.3.
InvalidItemType	See section 2.2.2.1.3.
InvalidKpi	See section 2.2.2.1.3.
InvalidKpiMeasure	An attribute of a **KPIMeasure** (section 2.2.4.129) is invalid.
InvalidMember	An attribute of a **Member** (section 2.2.4.134) is invalid.
InvalidNamedSet	An attribute of a **NamedSet** (section 2.2.4.147) is invalid.
InvalidNamedSetSetting	A **named set** expression is invalid.
InvalidObject	See section 2.2.2.1.3.

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Error code	Description
InvalidOverrideFormatProperties	An attribute of a **KpiNumberFormatProperties** (section 2.2.4.130) is invalid.
InvalidPermission	See section 2.2.2.1.3.
InvalidPermissionAdmin	See section 2.2.2.1.3.
InvalidQueryChildMembers	The specified **member (2)** name is invalid.
InvalidQueryDimensionRootMembers	The specified **dimension** name is invalid.
InvalidReportView	See section 2.2.2.1.3.
InvalidReportViewCubeName	The cube name in an **MDX** query is not equal to the cube specified in the Analysis Services **DataSource** (section 2.2.4.85) used to run the query.
InvalidSetting	See section 2.2.2.1.3.
InvalidStatusFilterBandIndex	The **BandIndex** attribute of a **StatusFilter** (section 2.2.4.167) is invalid.
InvalidTextLength	A string attribute is null, empty or exceeds its specified maximum length.
InvalidTimeIntelligenceConfiguration	The **time intelligence** configuration of a **data source (1)** is invalid.
InvalidTimeIntelligenceFormula	A time intelligence expression is invalid.
InvalidTimeIntelligenceSetting	An attribute of a **TimeIntelligenceDataSource** (2.2.4.171), **TimeIntelligenceFormula** (2.2.4.173), **TimeIntelligenceLevelBinding** (2.2.4.174), or **TimeIntelligenceMdxSettings** (2.2.4.175) is invalid.
InvalidUrl	The server (2) is not configured properly or is not functioning correctly.
InvalidVersion	An attribute of a **ElementVersion** (section 2.2.4.92) is invalid
MissingConnectionString	The server (2) is not configured properly or is not functioning correctly.
NewSetting	An attempt was made to update a non-existent setting.
NotAParameterizableControl	The server (2) is not configured properly or is not functioning correctly.
NotTrustedLocation	See section 2.2.2.1.3
OperationContextNull	The server (2) is not configured properly or is not functioning correctly.
ParameterDataProviderNotRegistered	The parameter data provider is not registered.
QueryTimeout	A timeout occurred while querying a data source (1).

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Error code	Description
RepositoryLocationAbsoluteUrl	See section 2.2.2.1.3.
RepositoryLocationEmpty	See section 2.2.2.1.3.
RepositoryLocationUrlLength	See section 2.2.2.1.3.
SharedAccountMisconfigured	The shared account credentials are not configured correctly.
TimeIntelligenceNotConfigured	A **DataSource** is not configured for time intelligence.
TimeIntelligenceNotSupported	A data source (1) does not support time intelligence.
UnableToLoadCustomDataSource	The server (2) is not configured properly or is not functioning correctly.
UnableToLoadCustomParameterDataProvider	The server (2) is not configured properly or is not functioning correctly.
UnableToLoadCustomViewTransform	The server (2) is not configured properly or is not functioning correctly.
UnableToLoadFCODao	The server (2) is not configured properly or is not functioning correctly.
Unknown	See section 2.2.2.1.3.

2.2.2.1.3 Common List of Error Codes

In the event of an application error, these values are commonly returned by the **server (2)** in the **ErrorCode** element of the **BpmException** complex type (2.2.4.61), as specified in section 2.2.2.1.1. The protocol client MAY perform logical operations on these values of the **ErrorCode** element.

Error code	Description
DataSourceConnectionFailed	A connection to the **data source (1)** could not be established.
DatabaseConnectionNotOpen	The connection to the data source (1) has been lost.
DataSourceConnectionUnsupported	The host server (2) defined by the data source (1) is not a supported server (2), or the server (2) refused the connection.
DataSourceDatabaseNotFound	A connection to the database defined by the data source (1) could not be established.
DataSourceHostNotFound	A connection to the host server (2) defined by the data source (1) could not be established. This indicates a network or security issue.
FCOCreateFailed	There are inadequate permissions to create this object.
FCOCreateFailedListAccess	The content store<1> containing this object no longer exists. The object cannot be created.
FCOCreateFailedListType	The object cannot be created<2>.

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Error code	Description
FCOCreateFailedNameCollision	A data source (1) with the requested name already exists. Choose a different name.
FCODeleteFailed	The content store<3> containing this object no longer exists, there are inadequate permissions to view the content store<4> or the object has already been deleted.
FCODeleteFailedListAccess	There are inadequate permissions to delete this object. The object cannot be deleted.
FCOReadFailed	There are inadequate permissions to read this object or it cannot be read.
FCOReadFailedListAccess	The content store<5> containing this object no longer exists or there are inadequate permissions to view it.
FCOUpdateFailed	An update of this object failed.
FCOUpdateFailedListAccess	The content store<6> containing this object no longer exists or there are inadequate permissions to view it. The object cannot be updated.
FCOUpdateFailedListType	The content store<7> containing this object does not support the type of object being updated. The object cannot be updated.
FCOUpdateFailedNameCollision	An update this object failed because of a name collision.
InvalidBuiltinIndicatorOperation	Current operation on the indicator cannot be finished because the indicator's **URL** is invalid.
InvalidCategoryName	Current operation on the object cannot be finished because the object's containing folder is invalid.
InvalidDataSource	Current operation on the data source (1) cannot be finished because the data source (1) has failed validation.
InvalidElement	Current operation on the Element cannot be finished because the Element has failed basic validation.
InvalidElementField	Current operation on the Element cannot be finished because the Element has an invalid identifier.
InvalidFirstClassElementField	Current operation on the object cannot be finished because some of the object's data fields are invalid.
InvalidIndicator	Current operation on the indicator cannot be finished because the indicator has failed validation.
InvalidIndicatorBand	Current operation on the indicator cannot be finished because the indicator has failed validation.
InvalidItemType	Current operation on the object cannot be finished because the object's corresponding SharePoint item does not have the expected content type.
InvalidKpi	Current operation on the **KPI** cannot be finished because the KPI has failed validation.

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Error code	Description
InvalidObject	Current operation on the Element cannot be finished because the Element has failed validation.
InvalidPermission	The user does not have sufficient permissions to complete the request.
InvalidPermissionAdmin	The user does not have sufficient administrative permissions to complete the request.
InvalidReportView	Current operation on the **report view** cannot be finished because the report view has failed validation.
InvalidSetting	Current operation on the object cannot be finished because some of the object's UI appearance data fields are invalid.
NotTrustedLocation	The location of the data source (1) or object is not configured as trusted.
RepositoryLocationEmpty	The URL address supplied in the RepositoryLocation (section 2.2.4.161) contains the empty string.
RepositoryLocationUrlLength	The URL address supplied in the RepositoryLocation exceeds the maximum length of 2048 characters.
RepositoryLocationAbsoluteUrl	The URL address supplied in the RepositoryLocation is absolute, when it MUST be relative, as specified in [RFC1808].
Unknown	An unexpected error occurred. An error number is included in the message text.

2.2.3 Elements

This specification does not define any common **XML schema** element definitions.

2.2.4 Complex Types

The following table summarizes the set of common **XML schema** complex type definitions defined by this specification. XML schema complex type definitions that are specific to a particular operation are described with the operation.

Complex type	Description
AddAllMembersSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add all members, at the **level** specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddCalcMemberSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a calculated **member (2)**, specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddChildrenSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add **child** members (2), of the member (2) specified by **Name** (see section 2.2.4.165), to a

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Complex type	Description
	MemberSet (see section 2.2.4.144).
AddDefaultMemberSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add the **default member** to a **MemberSet** (see section 2.2.4.144).
AddDescendantsLeavesSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add leaf **descendant** members (2), of the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddDescendantsSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add descendant members (2), at the level specified by **LevelName** to the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddDescendantsSubtreeSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add descendant members (2), from all levels subordinate to the member specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddFilterSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a value **filter** set operation to a **MemberSet** (see section 2.2.4.144).
AddFilterTopBottomSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a top or bottom filter set operation to a **MemberSet** (see section 2.2.4.144).
AddMemberSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a member (2), specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddNamedSetSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a named set, specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AddParentSiblingsSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add the parent's siblings (members (2)), of the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).
AliasInfo	The **AliasInfo** complex type maps a **KpiMeasure** complex type (section 2.2.4.129) to a string. This mapping defines an alias used to simplify the display, and the definition of formulas used in calculated metrics.
AnalyticBaseReportViewData	The **AnalyticBaseReportViewData** is a complex type that contains the base **report view** details for analytic reports.
AnalyticChartLegend	The **AnalyticChartLegend** complex type specifies a chart legend.
AnalyticChartReportView	The **AnalyticChartReportView** is a complex type that contains the chart type report view details for analytic reports.
AnalyticGridReportView	The **AnalyticGridReportView** complex type defines how analytic grid reports are displayed to users.
Annotation	The **Annotation** complex type associates a collection of comments to a **cell** in a particular **slice** of a **scorecard**. An annotation is

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Complex type	Description
	created using **CreateAnnotation** operation (section 3.1.4.1), and updated using the **UpdateAnnotation** operation (section 3.1.4.70).
AnnotationComment	This complex type specifies a comment for an **Annotation** (see section 2.2.4.18). This type extends **Comment** type (see section 2.2.4.76).
ArrayOfAliasInfo	This complex type specifies an array of **AliasInfo** complex types (see section 2.2.4.13).
ArrayOfAnnotationComment	The **ArrayOfAnnotationComment** complex type specifies an array of **AnnotationComment** elements (see section 2.2.4.19).
ArrayOfAxis	A collection of axes used in a **QueryState** object (see section 2.2.4.158).
ArrayOfBpmProperty	The **ArrayOfBpmProperty** complex type specifies an array of BpmProperty elements (see section 2.2.4.62).
ArrayOfBpmPropertyListItem	The **ArrayOfBpmPropertyListItem** complex type specifies an array of **items** in a list property.
ArrayOfChoice1	The **ArrayOfChoice1** complex type specifies an array of property values. The type of the element in the array MUST be one of **decimal**, **ArrayOfMember** (section 2.2.4.45), **ArrayOfMemberTransform** (section 2.2.4.46), **dateTime**, **string**, **double**, **guid**, **char**, or **int**.
ArrayOfComment	The **ArrayOfComment** complex type specifies an array of comments.
ArrayOfConfiguredView	The **ArrayOfConfiguredView** complex type specifies an array of view definitions for a scorecard.
ArrayOfDashboardElement	The **ArrayOfDashboardElement** complex type specifies an array of DashboardElement (see section 2.2.4.80).
ArrayOfDataColumnMapping	The **ArrayOfDataColumnMapping** complex type specifies an array of **DataColumnMapping** (see section 2.2.4.84).
ArrayOfDecimal	The **ArrayOfDecimal** complex type specifies an array of **Decimal**.
ArrayOfDefaultDimensionSetting	The **ArrayOfDefaultDimensionSetting** complex type specifies an array of **DefaultDimensionSetting** (see section 2.2.4.87).
ArrayOfDimension	The **ArrayOfDimension** complex type specifies an array of **dimension** elements.
ArrayOfEndPoint	The **ArrayOfEndPoint** complex type specifies an array of connection termination points for a consumer **Web Part** such as a report view or a scorecard.
ArrayOfFirstClassElement	The **ArrayOfFirstClassElement** complex type specifies an array of first-class objects.
ArrayOfGridCell	The **ArrayOfGridCell** complex type specifies an array of cells used by a grid view such as the scorecard view (section 2.2.4.121).
ArrayOfGridDisplayElement	An array of elements for a scorecard cell.
ArrayOfGridHeaderItem	The **ArrayOfGridHeaderItem** complex type specifies an array of headers for a scorecard.

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Complex type	Description
ArrayOfGridViewTransformReference	The **ArrayOfGridViewTransformReference** complex type specifies an array of references to a grid view transform.
ArrayOfHierarchy	The **ArrayOfHierarchy** complex type specifies an array of hierarchy values for a dimension.
ArrayOfIndicatorBand	The **ArrayOfIndicatorBand** complex type specifies an array of indicator bands.
ArrayOfKpi	The **ArrayOfKpi** complex type specifies an array of **Kpi** complex types (section 2.2.4.128) for a scorecard.
ArrayOfKpiMeasure	The **ArrayOfKpiMeasure** complex type specifies an array of **KpiMeasure** complex types (section 2.2.4.129).
ArrayOfLevel	The **ArrayOfLevel** complex type defines an array of **Level** (section 2.2.4.131) complex type.
ArrayOfMeasure	The **ArrayOfMeasure** complex type defines an array of **Measure** (section 2.2.4.133) complex type.
ArrayOfMember	The **ArrayOfMember** complex type defines an array of **Member** (section 2.2.4.134) complex type.
ArrayOfMemberTransform	The **ArrayOfMemberTransform** complex type defines an array of **MemberTransform** (section 2.2.4.146) complex type.
ArrayOfNamedSet	The **ArrayOfNamedSet** complex type defines an array of **NamedSet** (section 2.2.4.147) complex type.
ArrayOfNameInfo	The **ArrayOfNameInfo** complex type<8> defines an array of **NameInfo** complex types (section 2.2.4.149).
ArrayOfParameter	A collection of parameters used in an analytic **query**.
ArrayOfParameterDefinition	The **ArrayOfParameterDefinition** complex type defines an array of ParameterDefinition (section 2.2.4.155) complex type.
ArrayOfParameterMapping	The **ArrayOfParameterMapping** complex type defines an array of ParameterMapping (section 2.2.4.156) complex type.
ArrayOfPropertyBag	The **ArrayOfPropertyBag** complex type defines an array of **PropertyBag** (section 2.2.4.158) elements.
ArrayOfSetOperation	The **ArrayOfSetOperation** complex type specifies an array of **SetOperation** elements (see section 2.2.4.165)
ArrayOfString	The **ArrayOfString** complex type specifies an array of string.
ArrayOfTarget	The **ArrayOfTarget** complex type specifies an array of **Target** (section 2.2.4.170) complex types.
ArrayOfTimeIntelligenceDataSource	A collection of **time intelligence** data source reference used in time intelligence parameter definitions.
ArrayOfTimeIntelligenceFormula	A collection of time intelligence parameter formulas.
ArrayOfTimeIntelligenceLevelBinding	The **ArrayOfTimeIntelligenceLevelBinding** complex type specifies an array of time intelligence binding elements.
Axis	The **Axis** complex type specifies information about an axis in a query result.

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Complex type	Description
Banding	The **Banding** complex type represents the **banding** settings of the **KPI target**.
BpmException	The **BpmException** complex type contains the details of a **server (2)** alert.
BpmProperty	This **BpmProperty** complex type is the abstract base type for BpmPropertyDate, BpmPropertyDecimal, BpmPropertyHyperlink, BpmPropertyHyperlink2, BpmPropertyLinkBase, BpmPropertyList, BpmPropertyListItem, BpmPropertyLongText, BpmPropertyText and BpmPropertyUser.
BpmPropertyBool	The **BpmPropertyBool** complex type defines a Boolean property. It extends the **BpmProperty** (section 2.2.4.62) type.
BpmPropertyDate	The **BpmPropertyDate** complex type defines a **Date** property. It extends the **BpmProperty** (section 2.2.4.62) type.
BpmPropertyDecimal	The **BpmPropertyDecimal** complex type defines a **Decimal** property. It extends the **BpmProperty** (section 2.2.4.62) type.
BpmPropertyHyperlink	This complex type defines a **Hyperlink** property. This type extends **BpmPropertyLinkBase** (section 2.2.4.68). This type is used to specify Hyperlinks as custom properties for types that extend **FirstClassElement** (section 2.2.4.99).
BpmPropertyHyperlink2	The**BmpPropertyHyperlink2** complex type defines a Hyperlink property. This type extends **BpmPropertyLinkBase** (section 2.2.4.68). This type is used to specify Hyperlinks as part of annotations for types that extend **FirstClassElement** complex type (section 2.2.4.99).
BpmPropertyLinkBase	The **BpmPropertyLinkBase** complex type defines a **Hyperlink** property. It extends the **BpmProperty** (section 2.2.4.62) type.
BpmPropertyList	The **BmpPropertyList** complex type specifies zero, or one item of the **ArrayOfBpmPropertyListItem** complex type (section 2.2.4.24). It extends the **BpmProperty** complex type (section 2.2.4.62).
BpmPropertyListItem	The **BpmPropertyListItem** complex type specifies a name-value pair.
BpmPropertyLongText	This complex type defines a Long Text property. The type extends **BpmProperty** (section 2.2.4.62).
BpmPropertyText	This complex type defines a **Text** property. The type extends **BpmProperty** (section 2.2.4.62).
BpmPropertyUser	This complex type defines a **User** property. The type extends **BpmProperty** (section 2.2.4.62).
CalculatedFormulaInfo	This complex type specifies a calculated **formula** in a **KpiMeasure** (section 2.2.4.129). This type is used to specify calculations as part of a KPI's calculated metric.
CalculatedMember	Represents an **OLAP calculated member** in a **Dimension** complex type (section 2.2.4.90).<9>
Comment	This complex type represents a comment to be associated with a data entity. This class is the base class for **AnnotationComment**

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Complex type	Description
	(section 2.2.4.19).
ConfiguredView	This complex type specifies the scorecard view and configuration settings of how the scorecard displays and what end user actions are allowed. The protocol client that renders the scorecard MUST use this configuration when displaying it.
Cube	The **Cube** complex type specifies the structure of a **cube**. It extends the complex type **NameInfo** complex type(section 2.2.4.149).
Dashboard	The **Dashboard** complex type defines a **dashboard**. It specifies the layout and content of the pages in the dashboard and, if the dashboard has been deployed, its deployment location. The **Dashboard** complex type extends the **FirstClassElement** type (section 2.2.4.99).
DashboardElement	The **DashboardElement** complex type specifies the parts of a **Dashboard** (section 2.2.4.79) that have width and height. The **DashboardElement** complex type extends the **SecondClassElement** type (section 2.2.4.163) and is the base type for **DashboardElementContainer** (section 2.2.4.81) and **DashboardItem** (section 2.2.4.83).
DashboardElementContainer	The **DashboardElementContainer** complex type specifies a group of **DashboardElement** complex types (section 2.2.4.80) that are displayed vertically or horizontally. Each dashboard page is specified by a **DashboardElementContainer**. Each zone on a dashboard page is specified by a **DashboardElementContainer**. The **DashboardElementContainer** complex type extends the **DashboardElement**.
DashboardElementSize	This complex type specifies the width or height of a **DashboardElement** (section 2.2.4.80).
DashboardItem	The **DashboardItem** complex type specifies a single **report**, scorecard, or filter on a dashboard page. **DashboardItem** extends the **DashboardElement** (section 2.2.4.80).
DataColumnMapping	The **DataColumnMapping** complex type specifies dimensional mapping information for a column of data.
DataSource	The **DataSource** complex type specifies a connection to an external data provider.
DataTableMapping	The **DataTableMapping** complex type specifies how data from tabular data sources is mapped to multidimensional data.
DefaultDimensionSetting	Specifies a default set of members in a dimension. It extends the Dimension (see section 2.2.4.90) type.
DictionaryWrapperOfStringGridCell	This complex type specifies a collection of ArrayOfGridCells (see section 2.2.4.35) with associated string keys.
DictionaryWrapperOfStringPropertyBag	This complex type specifies a collection of **ArrayOfPropertyBags** with associated string keys.
Dimension	The **Dimension** complex type specifies the structure of a dimension. It extends the complex type **NameInfo** (section

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Complex type	Description
	2.2.4.149).
Element	This abstract class specifies basic metadata about an item. This class is the base class for FirstClassElement and SecondClassElement.
ElementVersion	This complex type specifies the version information used to distinguish different instances of a FirstClassElement.
EliminateDescendantsSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to eliminate descendant members (2), of the member (2) specified by **Name** (see section 2.2.4.165), from a **MemberSet** (see section 2.2.4.144).
EliminateMemberSetOp	This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to eliminate a member (2), specified by **Name** (see section 2.2.4.165), from a **MemberSet** (see section 2.2.4.144).
EndPoint	This complex type defines the receiving end of a connection between a Web Part that provides parameter values such as a filter or a scorecard, and a Web Part that consumes parameter values, such as a report view or a scorecard.
ExcelDataSet	Specifies the Excel **workbook** ([MS-XLS]) data for an **ExcelWorkbook** data source.
ExcelServicesData	Describes an Excel Services ([MS-ESP]) data connection used by Excel Services data sources and Excel Services reports.
Filter	The **Filter** complex type specifies a filter.
FirstClassElement	The **FirstClassElement** complex type is an abstract class that represents an object that is versionable. This is the base class for the complex types **Dashboard** (section 2.2.4.79), **DataSource** (section 2.2.4.85), **Scorecard** (section 2.2.4.162), **ReportView** (section 2.2.4.160), **Kpi** (section 2.2.4.128) and **Indicator** (section 2.2.4.125).
GridCell	Specifies a single cell used by the scorecard grid view and the analytic grid view.
GridCellSet	This class specifies the cells used to represent a scorecard or analytic grid. The representation is based on a two dimensional array of GridCell elements indexed by objects of type GridHeaderItem.
GridColor	This class represents the grid color for the GridCell contents.
GridDisplayElement	Specifies an element in a scorecard cell.
GridDisplayElementActual	Specifies the GridDisplayElement of a KPI's actual value in a scorecard cell.
GridDisplayElementAggregation	Specifies the GridDisplayElement of an aggregated value in a scorecard cell.
GridDisplayElementHyperLink	Specifies the GridDisplayElement of a KPI's hyperlink property in a cell.
GridDisplayElementIndicator	Specifies the image of an **indicator** for the GridDisplayElement in a scorecard cell.

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Complex type	Description
GridDisplayElementIndicatorText	Specifies the descriptive name of an **indicator** for the GridDisplayElement in a scorecard cell. The descriptive name of the **IndicatorBand** is the **ToolTip** property of the IndicatorBand, for example: "off target".
GridDisplayElementNumber	Specifies a numeric GridDisplayElement in a scorecard cell. This is a base class for the following complex types GridDisplayElementsActual, GridDsisplayElementTarget, GridDisplayElementScore, GridDisplayElementVariance
GridDisplayElementScore	Specifies the GridDisplayElement of the KPI target's score in a scorecard cell. Inherits from the GridDisplayElementNumber.
GridDisplayElementTarget	Specifies the GridDisplayElement of a KPI's target value in a scorecard cell. Inherits from the GridDisplayElementNumber.
GridDisplayElementText	Specifies the GridDisplayElement of a text value in a scorecard cell. Inherits from the GridDisplayElement.
GridDisplayElementVariance	Specifies the GridDisplayElement of a KPI target's variance value in a scorecard cell. Inherits from the GridDisplayElementNumber.
GridFontInfo	This class represents the font display options for the GridCell contents.
GridFormatInfo	This class represents the display format settings for the GridCell contents.
GridHeaderItem	The **GridHeaderItem** complex type specifies the header that represents a row or a column node in a scorecard.
GridIndicatorSettings	Defines the settings for the Indicator in the Target field.
GridScoreSettings	Defines the settings for the **score** in the Target field.
GridTargetSettings	Defines the display settings for the Target column.
GridVarianceSettings	Defines the settings for the **variance** in the Target column.
GridViewData	The **GridViewData** complex type specifies the data structure that represents the scorecard view.
GridViewDefinition	The **GridViewDefinition** complex type specifies the definition of a grid-based scorecard view.
GridViewTransformReference	The **GridViewTransformReference** complex type specifies one **transform** operation to be applied to a **GridViewData** complex type (section 2.2.4.121) instance.
Hierarchy	The **Hierarchy** complex type specifies a **hierarchy**. It extends the complex type **NameInfo** (section 2.2.4.149).
Indicator	A set of visualizations that represent how the actual value of a KPI compares against its target value.
IndicatorBand	This is a visualization representing one state of an **indicator**.
Item	Represents a key-value pair in a **SerializableDictionary** (section 2.2.4.164).
Kpi	A key performance indicator (KPI) is contained in a scorecard.
KpiMeasure	The **KpiMeasure** complex type is contained in a KPI.

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Complex type	Description
KpiNumberFormatProperties	Used for custom formatting of KPI **measure** values.
Level	This complex type specifies a level. It extends the complex type **NameInfo** (section 2.2.4.149).
MDXParameterDefinition	The **MDXParameterDefinition** is a complex type that specifies a custom **MDX** used to retrieve data.
Measure	The **Measure** complex type specifies a measure. It extends the complex type **NameInfo** (section 2.2.4.149).
Member	The **Member** complex type represents an **OLAP** member in a **Dimension** complex type (section 2.2.4.90).
MemberList	The **MemberList** complex type specifies the members (2) of an OLAP hierarchy. This type extends **MemberSet** complex type (section 2.2.4.144), and can be used with any axis type.
MemberOperation	Represents the basic member operations that can be performed on an OLAP dimension member.
MemberOperationAllDescendants	A **MemberOperation** complex type (section 2.2.4.136) that represents all descendants of a referred member in the dimension hierarchy. This type extends **MemberOperation**.
MemberOperationChildren	A MemberOperation that represents all child members of a referred member in a dimension hierarchy. This type extends MemberOperation.
MemberOperationDescendants	A MemberOperation that represents all descendants of a referred member at a specified level in the hierarchy. This type extends MemberOperation.
MemberOperationDrillUp	A MemberOperation that represents the parent of a referred member. This type extends MemberOperation.
MemberOperationHide	A MemberOperation that hides a referred member. This type extends MemberOperation.
MemberOperationLeafDescendants	A MemberOperation that represents all descendants of a referred member that are also leaf members in the dimension hierarchy. This type extends MemberOperation.
MemberParameterDefinition	The **MemberParameterDefinition** is a complex type that represents a group of members (2) used to retrieve data.
MemberSet	Specifies the properties of an OLAP member hierarchy.
MemberSetFormula	Specifies a collection of operations on the members (2) of an OLAP hierarchy. This type extends MemberSet and can be used with any axis type.
MemberTransform	Represents a transform, such as **drilldown**, applied to a member, hierarchy group or KPI.
NamedSet	An OLAP **named set**.
NamedSetParameterDefinition	The **NamedSetParameterDefinition** is a complex type representing a set of members (2) used to retrieve data.
NameInfo	The **NameInfo** complex type specifies the names and the description of a cube, dimension, hierarchy, level, or measure. It is the base type for the complex types **Cube** (section 2.2.4.78),

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Complex type	Description
	Dimension (section 2.2.4.90), **Hierarchy** (section 2.2.4.124), **Level** (section 2.2.4.131), and **Measure** (section 2.2.4.133).
NumericFormat	The **NumericFormat** is a complex type that represents the numeric format setting for an **Analysis Services** measure numeric value within an analytic grid report.
NumericFormatsHashtable	An array of **NumericFormat** objects.
OLAPQueryData	Represents an analytic query.
OLAPReportView	The **OLAPReportView** complex type contains all the state information for an analytic report.
Parameter	Specifies a logical element of an analytic query whose value can be changed independently of the analytic query.
ParameterDefinition	This class represents the non-visual portion of the metadata to describe a parameter. This class carries the state necessary to generate a parameter list representing possible connections that can be originated from a first-class element.
ParameterMapping	Provides the mapping information between a **ParameterDefinition** (section 2.2.4.155) and a **DashboardItem** (section 2.2.4.83).
PasReportViewData	Contains all the state information for a ProClarity Analytics Server report.
PropertyBag	The **PropertyBag** complex type MUST contain a pairing of keys and values.
QueryState	An alternate representation of a MDX query that includes the member selections of each axis.
ReportView	The **ReportView** complex type controls the visual display of data in a dashboard and can be coordinated with other report views using filters. Report views include analytic grids and charts, **PivotTable** and **PivotChart** reports, Excel spreadsheets [MS-XLSX], SQL Server Reporting Services reports, **strategy maps**, trend charts, web pages, and custom reports.
RepositoryLocation	The **RepositoryLocation** complex type specifies the location of a **FirstClassElement** (section 2.2.4.99) stored on the server (2).
Scorecard	This complex type represents a scorecard.
SecondClassElement	This abstract class is the base class for ConfiguredView (section 2.2.4.77), DashboardElement (section 2.2.4.80), and KpiMeasure (section 2.2.4.129).
SerializableDictionary	This complex type specifies an ordered collection of elements of complex type **MemberSetFormula** (section 2.2.4.145), **MemberList** (section 2.2.4.135), or **Member** (section 2.2.4.134), with their associated string keys.
SetOperation	This complex type specifies a set operation.
SqlReportViewData	The **SqlReportViewData** complex type contains all the state information for a SQL Reporting Services report.
StatusFilter	This complex type specifies an **indicator** to be filtered.

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Complex type	Description
StrategyMapViewData	The **StrategyMapViewData** complex type class specifies metadata information about a strategy map.
StringCollection	The StringCollection complex type specifies a collection of dimension properties.
Target	The target of a KPI used to measure against actual data.
TimeIntelligenceDataSource	A time intelligence data source reference used in time intelligence parameter definitions.
TimeIntelligenceDefinition	The **TimeIntelligenceDefinition** complex type specifies time intelligence formulas and data sources. It is used in **CustomDefinition** of the **ParameterDefinition** complex type (section 2.2.4.155).
TimeIntelligenceFormula	This complex type specifies a time intelligence parameter formula.
TimeIntelligenceLevelBinding	Specifies the mapping of internal cube dimensions to their time aggregation level.
TimeIntelligenceMdxSettings	Specifies how a dimension in an Analysis Services data source maps to a time intelligence filter when running **Simple Time Period Specification (STPS)** formulas against the data source.
TimeIntelligencePostFormulaDefinition	This complex type specifies a time intelligence post formula filter definition.
TimeIntelligenceSettings	Specifies additional time intelligence settings for a data source.
Title	This complex type represents a title for an analytic chart.
ToolbarOptions	Contains the configuration settings of the toolbar of a **ConfiguredView** (section 2.2.4.77).
Tuple	The **Tuple** complex type<10> represents an ordered collection of one or more **Member** complex types (section 2.2.4.134) from different dimensions. It contains an instance of **SerializableDictionary** complex type (section 2.2.4.164).
XmlFont	Specifies a set of attributes that define a font.

2.2.4.1 AddAllMembersSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add all members, at the **level** specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddAllMembersSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```


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2.2.4.2 AddCalcMemberSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a calculated **member (2)**, specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddCalcMemberSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Aggregate" type="xs:boolean"/>
        <xs:element minOccurs="1" maxOccurs="1" name="Caption" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Aggregate: Specifies whether the aggregate function will be used when the member set definition is generated. When the aggregate element is not present, the default value for the aggregate member is set to **TRUE** if the calculated member definition is not yet already aggregated. If the calculated member definition is aggregated, it is set to **FALSE** to avoid double aggregation.

Caption: The display name of the calculated member. This element MUST be present.

2.2.4.3 AddChildrenSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add **child members (2)**, of the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddChildrenSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.4 AddDefaultMemberSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add the **default member** to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddDefaultMemberSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.5 AddDescendantsLeavesSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

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This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add leaf **descendant members (2)**, of the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddDescendantsLeavesSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.6 AddDescendantsSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add **descendant members (2)**, at the **level** specified by **LevelName** to the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddDescendantsSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="LevelName" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

LevelName: A level name from the **hierarchy** associated with the **MemberSet** (see section 2.2.4.144). It MUST exist and MUST NOT be empty.

2.2.4.7 AddDescendantsSubtreeSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add **descendant members (2)**, from all **levels** subordinate to the member specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddDescendantsSubtreeSetOp"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.8 AddFilterSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a value **filter** set operation to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddFilterSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
```


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```
</xs:complexType>
```

2.2.4.9 AddFilterTopBottomSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a top or bottom **filter** set operation to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddFilterTopBottomSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.10 AddMemberSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a **member (2)**, specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddMemberSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.11 AddNamedSetSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add a named set, specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddNamedSetSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.12 AddParentSiblingsSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to add the parent's siblings (**members (2)**), of the member (2) specified by **Name** (see section 2.2.4.165), to a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="AddParentSiblingsSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```


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2.2.4.13 AliasInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AliasInfo** complex type maps a **KpiMeasure** complex type (section 2.2.4.129) to a string. This mapping defines an alias used to simplify the display, and the definition of formulas used in calculated metrics.

The format MUST be as follows:

```
<xs:complexType name="AliasInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="AliasCalculationInfo"
type="tns:KpiMeasure"/>
  </xs:sequence>
  <xs:attribute name="AliasName" type="xs:string"/>
</xs:complexType>
```

AliasCalculationInfo: MUST specify the **KpiMeasure** used in the calculated metric. This element MUST NOT be null and MUST conform to the schema of the **KpiMeasure** complex type.

AliasName: Is the display name of the **AliasCalculationInfo** instance. This value MUST NOT be null and MUST NOT be empty. It MUST be less than or equal to 31 characters in length.

2.2.4.14 AnalyticBaseReportViewData

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AnalyticBaseReportViewData** is a complex type that contains the base **report view** details for analytic reports.

```
<xs:complexType name="AnalyticBaseReportViewData"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="NumericFormats"
type="tns:NumericFormatsHashtable"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Font" type="tns:XmlFont"/>
    <xs:element minOccurs="0" maxOccurs="1" name="FontColor" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="BackgroundColor" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

NumericFormats: Numeric format settings for row or column measures of the analytic report as specified in the **NumericFormatsHashtable** (see section 2.2.4.151).

Font: Grid font used for rendering the analytic report and specified by XmlFont (see section 2.2.4.181).

FontColor: The color of the grid font used for rendering the analytic report. The font color is specified by a string. This MUST be one of the following formats:

- "NamedColor:<name>" where:
  - "<name>" is the name of a predefined color, specified by a string. Values MUST be the same as the names of the elements in Color Table, which follows.
  - Example: "NamedColor:Black".
- "ARGBColor:<A>:<R>:<G>:<B>" where:

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- "<A>" is the alpha component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- "<R>" is the red component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- "<G>" is the green component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- "<B>" is the blue component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- Example: "ARGBColor:255:255:255:255".

Color Table

Member name	Description
ActiveBorder	The system-defined color of the active window's border.
ActiveCaption	The system-defined color of the background of the active window's title bar.
ActiveCaptionText	The system-defined color of the text in the active window's title bar.
AppWorkspace	The system-defined color of the application workspace. The application workspace is the area in a multiple-document view that is not being occupied by documents.
Control	The system-defined face color of a 3-D element.
ControlDark	The system-defined shadow color of a 3-D element. The shadow color is applied to parts of a 3-D element that face away from the light source.
ControlDarkDark	The system-defined color that is the dark shadow color of a 3-D element. The dark shadow color is applied to the parts of a 3-D element that are the darkest color.
ControlLight	The system-defined color that is the light color of a 3-D element. The light color is applied to parts of a 3-D element that face the light source.
ControlLightLight	The system-defined highlight color of a 3-D element. The highlight color is applied to the parts of a 3-D element that are the lightest color.
ControlText	The system-defined color of text in a 3-D element.
Desktop	The system-defined color of the desktop.
GrayText	The system-defined color of dimmed text. **Items** in a list (1) that are disabled are displayed in dimmed text.
Highlight	The system-defined color of the background of selected items. This includes selected menu items as well as selected text.
HighlightText	The system-defined color of the text of selected items.
HotTrack	The system-defined color used to designate a hot-tracked item. Single-clicking a hot-tracked item runs the item.
InactiveBorder	The system-defined color of an inactive window's border.

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Member name	Description
InactiveCaption	The system-defined color of the background of an inactive window's title bar.
InactiveCaptionText	The system-defined color of the text in an inactive window's title bar.
Info	The system-defined color of the background of a **ToolTip**.
InfoText	The system-defined color of the text of a ToolTip.
Menu	The system-defined color of a menu's background.
MenuText	The system-defined color of a menu's text.
ScrollBar	The system-defined color of the background of a scroll bar.
Window	The system-defined color of the background in the client area of a window.
WindowFrame	The system-defined color of a window frame.
WindowText	The system-defined color of the text in the client area of a window.
Transparent	A system-defined color.
AliceBlue	A system-defined color.
AntiqueWhite	A system-defined color.
Aqua	A system-defined color.
Aquamarine	A system-defined color.
Azure	A system-defined color.
Beige	A system-defined color.
Bisque	A system-defined color.
Black	A system-defined color.
BlanchedAlmond	A system-defined color.
Blue	A system-defined color.
BlueViolet	A system-defined color.
Brown	A system-defined color.
BurlyWood	A system-defined color.
CadetBlue	A system-defined color.
Chartreuse	A system-defined color.
Chocolate	A system-defined color.
Coral	A system-defined color.
CornflowerBlue	A system-defined color.
Cornsilk	A system-defined color.

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Member name	Description
Crimson	A system-defined color.
Cyan	A system-defined color.
DarkBlue	A system-defined color.
DarkCyan	A system-defined color.
DarkGoldenrod	A system-defined color.
DarkGray	A system-defined color.
DarkGreen	A system-defined color.
DarkKhaki	A system-defined color.
DarkMagenta	A system-defined color.
DarkOliveGreen	A system-defined color.
DarkOrange	A system-defined color.
DarkOrchid	A system-defined color.
DarkRed	A system-defined color.
DarkSalmon	A system-defined color.
DarkSeaGreen	A system-defined color.
DarkSlateBlue	A system-defined color.
DarkSlateGray	A system-defined color.
DarkTurquoise	A system-defined color.
DarkViolet	A system-defined color.
DeepPink	A system-defined color.
DeepSkyBlue	A system-defined color.
DimGray	A system-defined color.
DodgerBlue	A system-defined color.
Firebrick	A system-defined color.
FloralWhite	A system-defined color.
ForestGreen	A system-defined color.
Fuchsia	A system-defined color.
Gainsboro	A system-defined color.
GhostWhite	A system-defined color.
Gold	A system-defined color.
Goldenrod	A system-defined color.
Gray	A system-defined color.

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Member name	Description
Green	A system-defined color.
GreenYellow	A system-defined color.
Honeydew	A system-defined color.
HotPink	A system-defined color.
IndianRed	A system-defined color.
Indigo	A system-defined color.
Ivory	A system-defined color.
Khaki	A system-defined color.
Lavender	A system-defined color.
LavenderBlush	A system-defined color.
LawnGreen	A system-defined color.
LemonChiffon	A system-defined color.
LightBlue	A system-defined color.
LightCoral	A system-defined color.
LightCyan	A system-defined color.
LightGoldenrodYellow	A system-defined color.
LightGray	A system-defined color.
LightGreen	A system-defined color.
LightPink	A system-defined color.
LightSalmon	A system-defined color.
LightSeaGreen	A system-defined color.
LightSkyBlue	A system-defined color.
LightSlateGray	A system-defined color.
LightSteelBlue	A system-defined color.
LightYellow	A system-defined color.
Lime	A system-defined color.
LimeGreen	A system-defined color.
Linen	A system-defined color.
Magenta	A system-defined color.
Maroon	A system-defined color.
MediumAquamarine	A system-defined color.
MediumBlue	A system-defined color.

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Member name	Description
MediumOrchid	A system-defined color.
MediumPurple	A system-defined color.
MediumSeaGreen	A system-defined color.
MediumSlateBlue	A system-defined color.
MediumSpringGreen	A system-defined color.
MediumTurquoise	A system-defined color.
MediumVioletRed	A system-defined color.
MidnightBlue	A system-defined color.
MintCream	A system-defined color.
MistyRose	A system-defined color.
Moccasin	A system-defined color.
NavajoWhite	A system-defined color.
Navy	A system-defined color.
OldLace	A system-defined color.
Olive	A system-defined color.
OliveDrab	A system-defined color.
Orange	A system-defined color.
OrangeRed	A system-defined color.
Orchid	A system-defined color.
PaleGoldenrod	A system-defined color.
PaleGreen	A system-defined color.
PaleTurquoise	A system-defined color.
PaleVioletRed	A system-defined color.
PapayaWhip	A system-defined color.
PeachPuff	A system-defined color.
Peru	A system-defined color.
Pink	A system-defined color.
Plum	A system-defined color.
PowderBlue	A system-defined color.
Purple	A system-defined color.
Red	A system-defined color.
RosyBrown	A system-defined color.

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Member name	Description
RoyalBlue	A system-defined color.
SaddleBrown	A system-defined color.
Salmon	A system-defined color.
SandyBrown	A system-defined color.
SeaGreen	A system-defined color.
SeaShell	A system-defined color.
Sienna	A system-defined color.
Silver	A system-defined color.
SkyBlue	A system-defined color.
SlateBlue	A system-defined color.
SlateGray	A system-defined color.
Snow	A system-defined color.
SpringGreen	A system-defined color.
SteelBlue	A system-defined color.
Tan	A system-defined color.
Teal	A system-defined color.
Thistle	A system-defined color.
Tomato	A system-defined color.
Turquoise	A system-defined color.
Violet	A system-defined color.
Wheat	A system-defined color.
White	A system-defined color.
WhiteSmoke	A system-defined color.
Yellow	A system-defined color.
YellowGreen	A system-defined color.
ButtonFace	The system-defined face color of a 3-D element.
ButtonHighlight	The system-defined color that is the highlight color of a 3-D element. This color is applied to parts of a 3-D element that face the light source.
ButtonShadow	The system-defined color that is the shadow color of a 3-D element. This color is applied to parts of a 3-D element that face away from the light source.
GradientActiveCaption	The system-defined color of the lightest color in the color gradient of an active window's title bar.

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Member name	Description
GradientInactiveCaption	The system-defined color of the lightest color in the color gradient of an inactive window's title bar.
MenuBar	The system-defined color of the background of a menu bar.
MenuHighlight	The system-defined color used to highlight menu items when the menu appears as a flat menu.

BackgroundColor: The background color for the grid data values of the analytic report. The font color is specified by a string. This MUST be one of the following formats:

- "NamedColor:<name>" where:
  - "<name>" is the name of a predefined color, specified by a string. Values MUST be the same as the names of the elements in Color Table, which precedes this section.
- "ARGBColor:<A>:<R>:<G>:<B>" where:
  - "<A>" is the alpha component, specified by a string. Values MUST NOT be less than zero and MUST NOT be greater than 255.
  - "<R>" is the red component, specified by a string. Values MUST NOT be less than zero and MUST NOT be greater than 255.
  - "<G>" is the green component, specified by a string. Values MUST NOT be less than zero and MUST NOT be greater than 255.
  - "<B>" is the blue component, specified by a string. Values MUST NOT be less than zero and MUST NOT be greater than 255.

2.2.4.15 AnalyticChartLegend

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AnalyticChartLegend** complex type specifies a chart legend.

```
<xs:complexType name="AnalyticChartLegend" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="BackColor" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Font" type="tns:XmlFont"/>
    <xs:element minOccurs="0" maxOccurs="1" name="FontColor" type="xs:string"/>
  </xs:sequence>
  <xs:attribute default="true" name="Visible" type="xs:boolean"/>
  <xs:attribute default="false" name="BorderVisible" type="xs:boolean"/>
  <xs:attribute default="Right" name="Location" type="tns:AnalyticLegendLocation"/>
</xs:complexType>
```

BackColor: The background color of the legend, specified by a string. This MUST be present and MUST be one of the following formats:

- "NamedColor:<name>" where:
  - "<name>" is the name of a predefined color, specified by a string. Values MUST be the same as the names of the elements listed in the color table in section 2.2.4.14.
- "ARGBColor:<A>:<R>:<G>:<B>" where:

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- "<A>" is the alpha component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- "<R>" is the red component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- "<G>" is the green component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
- "<B>" is the blue component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.

Font: The font of the chart legend as specified in XmlFont (see section 2.2.4.181). This MUST be present.

FontColor: The font color of the chart legend, specified by a string. This MUST be present and MUST be one of the following formats:

- "NamedColor:<name>" where:
  - "<name>" is the name of a predefined color, specified by a string. Values MUST be the same as the names of the elements listed in the color table in section 2.2.4.14.
- "ARGBColor:<A>:<R>:<G>:<B>" where:
  - "<A>" is the alpha component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<R>" is the red component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<G>" is the green component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<B>" is the blue component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.

Visible: This attribute MUST be present and MUST be **true** if the chart legend is visible; otherwise, **false**.

BorderVisible: This attribute MUST be present MUST be **true** if the chart legend border is visible; otherwise, **false**.

Location: The location of the chart legend as specified in **AnalyticLegendLocation** (see section 2.2.5.4). This MUST be present and has a default value of "Right".

2.2.4.16 AnalyticChartReportView

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AnalyticChartReportView** is a complex type that contains the chart type **report view** details for analytic reports.

```
<xs:complexType name="AnalyticChartReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:AnalyticBaseReportViewData">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Title" type="tns:Title"/>
        <xs:element minOccurs="0" maxOccurs="1" name="PlotAreaBackColor" type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Legend"
type="tns:AnalyticChartLegend"/>
```


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```
      </xs:sequence>
      <xs:attribute default="Column" name="ChartType" type="tns:AnalyticChartType"/>
      <xs:attribute default="None" name="LineMarkerStyle" type="tns:AnalyticMarkerStyle"/>
      <xs:attribute default="true" name="ChartColorVisible" type="xs:boolean"/>
      <xs:attribute default="false" name="ChartPointersVisible" type="xs:boolean"/>
      <xs:attribute default="2" name="LineWidth" type="xs:int"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Title: The title for the analytic chart as specified in **Title** complex type (section 2.2.4.178).

PlotAreaBackColor: The plot area background color for the grid data values of the analytic report. The background color is specified by a string. This MUST be one of the following formats:

- "NamedColor:<name>" where:
- "<name>" is the name of a predefined color, specified by a string. Values MUST be the same as the names of the elements listed in Color Table 1 (see section 2.2.4.2).
- "ARGBColor:<A>:<R>:<G>:<B>" where:
  - "<A>" is the alpha component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<R>" is the red component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<G>" is the green component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<B>" is the blue component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.

Legend: The chart legend as specified in **AnalyticChartLegend** complex type (section 2.2.4.15).

ChartType: The type of analytic chart, as specified in **AnalyticChartType** simple type (section 2.2.5.3). This element MUST be present and the default value is of **Column** type.

LineMarkerStyle: The style for the line markers in the analytic chart as specified in **AnalyticMarkerStyle** (section 2.2.5.5). This element MUST be present and the default value is "None".

ChartColorVisible: This attribute MUST be present and MUST be **TRUE** if the analytic chart color is visible; otherwise, the attribute is **FALSE**.

ChartPointersVisible: This attribute MUST be present and MUST be **TRUE** if the pointers of the analytic chart are visible; otherwise, the attribute is **FALSE**.

LineWidth: This element is a deprecated property, and MUST NOT be used.

2.2.4.17 AnalyticGridReportView

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AnalyticGridReportView** complex type defines how analytic grid reports are displayed to users.

```
<xs:complexType name="AnalyticGridReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:AnalyticBaseReportViewData">
```


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```
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="ReportLayout" type="tns:ReportLayout"/>
        <xs:element minOccurs="1" maxOccurs="1" name="ShortenRowLabels" type="xs:boolean"/>
        <xs:element minOccurs="1" maxOccurs="1" name="MaxRowLabelLength" type="xs:int"/>
        <xs:element minOccurs="1" maxOccurs="1" name="ShortenColumnLabels"
type="xs:boolean"/>
        <xs:element minOccurs="1" maxOccurs="1" name="MaxColumnLabelLength" type="xs:int"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ReportLayout: A **ReportLayout** simple type object (section 2.2.5.40) that specifies the manner in which row and column headers are displayed.

ShortenRowLabels: Specifies whether long row labels are truncated to save space. A value of **TRUE** indicates that long labels will be truncated. A value of **FALSE** indicates that they will not.

MaxRowLabelLength: Specifies the maximum length for row labels. **ShortenRowLabels** MUST be set to **TRUE** for this property to be used.

ShortenColumnLabels: Specifies whether long column labels are truncated to save space. A value of **TRUE** indicates that long labels will be truncated. A value of **FALSE** indicates that they will not.

MaxColumnLabelLength: Specifies the maximum length for column labels. **ShortenColumnLabels** MUST be set to **TRUE** for this property to be used.

2.2.4.18 Annotation

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Annotation** complex type associates a collection of comments to a **cell** in a particular **slice** of a **scorecard**. An annotation is created using **CreateAnnotation** operation (section 3.1.4.1), and updated using the **UpdateAnnotation** operation (section 3.1.4.70).

```
<xs:complexType name="Annotation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Comments"
type="tns:ArrayOfAnnotationComment"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Properties" type="tns:ArrayOfBpmProperty"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Owner" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="LastUpdatedBy" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Slice" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="CreatedOn" type="xs:dateTime"/>
    <xs:element minOccurs="1" maxOccurs="1" name="LastUpdatedOn" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ConfiguredViewID"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Guid"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CellpathCoordinates" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Version" type="tns:AnnotationVersions"/>
  </xs:sequence>
</xs:complexType>
```

Comments: Specifies the comment collection contained by the annotation. This element MUST conform to the schema of the **ArrayOfAnnotationComment** complex type (section 2.2.4.21).

Properties: Specifies the properties of the annotation. This element MUST conform to the schema of the **ArrayOfBpmProperty** complex type (section 2.2.4.23).

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Owner: Specifies the identity of the person responsible for the creation of the annotation. This element MUST be present. The value MUST NOT be empty, and MUST NOT consist of only whitespace characters.

LastUpdatedBy: Specifies the last person to update the annotation. This element MUST be present.

Slice: Specifies an aggregation context of the **PageFilters** element as defined in the **GridViewData** complex type (section 2.2.4.121) corresponding to the cell or cells in the scorecard for which this annotation is applicable. The value MUST be a sorted string of page filter member names, where each member name in the string is separated by a comma. The page filter member names are sorted using the current **UI culture**.

CreatedOn: Specifies the **dateTime** at which this annotation instance was created.

LastUpdatedOn: Specifies the **dateTime** at which this annotation was last updated.

ScorecardLocation: Specifies the location of the scorecard referenced by this annotation. This element MUST be present. This element MUST conform to the schema of the **RepositoryLocation** complex type (section 2.2.4.161).

ConfiguredViewID: Specifies the identity of the **ConfiguredView** complex type (section 2.2.4.77) for this annotation. This element MUST be formatted as a **GUID** and its value MUST NOT be {00000000000-0000000-00000-0000000}.

Guid: Specifies the identity for this annotation. This element MUST be formatted as a GUID and its value MUST NOT be {00000000000-0000000-00000-0000000}.

CellpathCoordinates: Specifies the coordinates of the scorecard cell that this annotation is associated with. The value MUST be the **MD5** hash of the **dimension** values of all the headers of a cell, sorted by their dimension names. This value MUST NOT be null or empty. The header cells MUST conform to the schema of **GridHeaderItem** complex type (section 2.2.4.116). This value for the checked cell in the following example scorecard is calculated as follows:

	All Geographies					
			Oregon		Washington	
	Actual	Target	Actual	Target	Actual	Target
Internet Order Quantity						
Accessories	X					
Bikes						
Clothing						

- The column and row headers for the cell are extracted and are used to compute the **CellPathCoordinates** for the cell. The **CellPathCoordinates** is a collection of headers of the cell and is computed as follows:

  1. For each row and column header of the cell its parent path is computed and represented as a collection of headers.

  2. The corresponding path is then reversed and appended to the **CellPathCoordinates**.

  3. The **CellPathCoordinates** for the checked cell is shown in the following table. The **DimensionValue**, **DimensionName** and **DisplayText** values of the **GridHeaderItem** complex type (section 2.2.4.116) for each header cell in the **CellPathCoordinates** are also listed in the table.

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GridHeaderItem	DimensionValue	DimensionName	DisplayText
Row Header Parent	"/PerformancePoint/Lists/PerformancePoint Content/10_.000"	"Scorecard_"	"Internet Order Quantity"
Row Header	"[Product].[Category].&[4]"	"Product.Category"	"Accessories"
Column Header Parent's Parent	"[Geography].[State-Province].[All Geographies]"	"Geography.State-Province"	"All Geographies"
Column Header Parent	"[Geography].[State-Province].[All Geographies]"	"Geography.State-Province"	""
Column Header	"Actual"	"Scorecard_Measures_"	"Actual"

- A sorted dictionary containing one entry per element in the **CellPathCoordinates** is then created.
- The sorted dictionary key is the header.DimensionName concatenated with header.Guid. The corresponding value in the dictionary is the header.DimensionValue.
- The dictionary keys MUST be sorted alphabetically in ascending order.
- The string representation of the coordinates of the path is then created by concatenating each of the values in the dictionary. This value for the example is:
  - "[Geography].[State-Province].[All Geographies][Geography].[State-Province].[All Geographies][Product].[Category].&[4]/PerformancePoint/Lists/PerformancePoint Content/10_.000Actual"
- A MD5 hash value (128-bit number) represented as a 32-digit hexadecimal number. The final output is the string "2BB92D0CE8F91E3E5FA5FB402EEE0E5C".

Version: Specifies the product version used to create this annotation. This element MUST conform to the schema of the **AnnotationVersions** simple type (section 2.2.5.6).

2.2.4.19 AnnotationComment

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a comment for an **Annotation** (see section 2.2.4.18). This type extends **Comment** type (see section 2.2.4.76).

```
<xs:complexType name="AnnotationComment" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:Comment">
      <xs:attribute name="Title" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```


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Title: Specifies the title for the comment. This element MUST be present. The value MUST NOT be empty and MUST NOT consist of only white-space characters.

2.2.4.20 ArrayOfAliasInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies an array of **AliasInfo** complex types (see section 2.2.4.13).

```
<xs:complexType name="ArrayOfAliasInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="AliasInfo" nillable="true"
type="tns:AliasInfo"/>
  </xs:sequence>
</xs:complexType>
```

AliasInfo: This element MUST NOT be null and MUST conform to the schema of the **AliasInfo** (section 2.2.4.13) complex type.

2.2.4.21 ArrayOfAnnotationComment

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfAnnotationComment** complex type specifies an array of **AnnotationComment** elements (see section 2.2.4.19).

```
<xs:complexType name="ArrayOfAnnotationComment" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="AnnotationComment" nillable="true"
type="tns:AnnotationComment"/>
  </xs:sequence>
</xs:complexType>
```

AnnotationComment: This element MUST NOT be null and MUST conform to the schema of the **AnnotationComment** (section 2.2.4.19) complex type.

2.2.4.22 ArrayOfAxis

Namespace: http://www.microsoft.com/performancepoint/scorecards

A collection of axes used in a **QueryState** object (see section 2.2.4.158).

```
<xs:complexType name="ArrayOfAxis" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Axis" type="tns:Axis"/>
  </xs:sequence>
</xs:complexType>
```

Axis: An **Axis** object (see section 2.2.4.59).

2.2.4.23 ArrayOfBpmProperty

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfBpmProperty** complex type specifies an array of BpmProperty elements (see section 2.2.4.62).

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```
<xs:complexType name="ArrayOfBpmProperty" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="BpmProperty" nillable="true"
type="tns:BpmProperty"/>
  </xs:sequence>
</xs:complexType>
```

BpmProperty: This element MUST NOT be null and MUST conform to the schema of the **BpmProperty** (section 2.2.4.62) complex type.

2.2.4.24 ArrayOfBpmPropertyListItem

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfBpmPropertyListItem** complex type specifies an array of **items** in a list property.

```
<xs:complexType name="ArrayOfBpmPropertyListItem"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="BpmPropertyListItem"
nillable="true" type="tns:BpmPropertyListItem"/>
  </xs:sequence>
</xs:complexType>
```

BpmPropertyListItem: This element MUST NOT be null and MUST conform to the schema of the **BpmPropertyListItem** (section 2.2.4.70) complex type.

2.2.4.25 ArrayOfChoice1

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfChoice1** complex type specifies an array of property values. The type of the element in the array MUST be one of **decimal**, **ArrayOfMember** (section 2.2.4.45), **ArrayOfMemberTransform** (section 2.2.4.46), **dateTime**, **string**, **double**, **guid**, **char**, or **int**.

```
<xs:complexType name="ArrayOfChoice1" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:choice minOccurs="0" maxOccurs="unbounded">
    <xs:element minOccurs="1" maxOccurs="1" name="char"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:char"/>
    <xs:element minOccurs="1" maxOccurs="1" name="int" type="xs:int"/>
    <xs:element minOccurs="1" maxOccurs="1" name="double" type="xs:double"/>
    <xs:element minOccurs="1" maxOccurs="1" name="string" nillable="true" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="dateTime" type="xs:dateTime"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ArrayOfMemberTransform" nillable="true"
type="tns:ArrayOfMemberTransform"/>
    <xs:element minOccurs="1" maxOccurs="1" name="guid"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ArrayOfString" nillable="true"
type="tns:ArrayOfString"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ArrayOfMember" nillable="true"
type="tns:ArrayOfMember"/>
    <xs:element minOccurs="1" maxOccurs="1" name="decimal" type="xs:decimal"/>
  </xs:choice>
</xs:complexType>
```

char: A character value.

int: An **integer** value.

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double: A **double** numeric value.

string: A **string** value and MUST NOT be null.

dateTime: A **dateTime** value.

ArrayOfMemberTransform: This element MUST NOT be null and MUST conform to the schema of the **ArrayOfMemberTransform** (section 2.2.4.46) complex type.

guid: An identity value.

ArrayOfString: This element MUST NOT be null and MUST conform to the schema of the **ArrayOfString** (section 2.2.4.54) complex type.

ArrayOfMember: This element MUST NOT be null and MUST conform to the schema of the ArrayOfMember (section 2.2.4.45) complex type.

decimal: A **decimal** value.

2.2.4.26 ArrayOfComment

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfComment** complex type specifies an array of comments.

```
<xs:complexType name="ArrayOfComment" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Comment" nillable="true"
type="tns:Comment"/>
  </xs:sequence>
</xs:complexType>
```

Comment: This element MUST NOT be null and MUST conform to the schema of the **Comment** (section 2.2.4.76) complex type.

2.2.4.27 ArrayOfConfiguredView

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfConfiguredView** complex type specifies an array of view definitions for a scorecard.

```
<xs:complexType name="ArrayOfConfiguredView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ConfiguredView" nillable="true"
type="tns:ConfiguredView"/>
  </xs:sequence>
</xs:complexType>
```

ConfiguredView: This element MUST NOT be null and MUST conform to the schema of the **ConfiguredView** (section 2.2.4.77) complex type.

2.2.4.28 ArrayOfDashboardElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfDashboardElement** complex type specifies an array of DashboardElement (see section 2.2.4.80).

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```
<xs:complexType name="ArrayOfDashboardElement" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="DashboardElement" nillable="true"
type="tns:DashboardElement"/>
  </xs:sequence>
</xs:complexType>
```

DashboardElement: This element MUST NOT be null and MUST conform to the schema of the **DashboardElement** (section 2.2.4.80) complex type.

2.2.4.29 ArrayOfDataColumnMapping

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfDataColumnMapping** complex type specifies an array of **DataColumnMapping** (see section 2.2.4.84).

```
<xs:complexType name="ArrayOfDataColumnMapping" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="DataColumnMapping" nillable="true"
type="tns:DataColumnMapping"/>
  </xs:sequence>
</xs:complexType>
```

DataColumnMapping: This element MUST NOT be null and MUST conform to the schema of the **DataColumnMapping** (section 2.2.4.84) complex type.

2.2.4.30 ArrayOfDecimal

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfDecimal** complex type specifies an array of **Decimal**.

```
<xs:complexType name="ArrayOfDecimal" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="decimal" type="xs:decimal"/>
  </xs:sequence>
</xs:complexType>
```

decimal: A valid **Decimal** value.

2.2.4.31 ArrayOfDefaultDimensionSetting

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfDefaultDimensionSetting** complex type specifies an array of **DefaultDimensionSetting** (see section 2.2.4.87).

```
<xs:complexType name="ArrayOfDefaultDimensionSetting"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="DefaultDimensionSetting"
nillable="true" type="tns:DefaultDimensionSetting"/>
  </xs:sequence>
</xs:complexType>
```


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DefaultDimensionSetting: This element MUST NOT be null and MUST conform to the schema of the **DefaultDimensionSetting** (section 2.2.4.87) complex type.

2.2.4.32 ArrayOfDimension

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfDimension** complex type specifies an array of **dimension** elements.

```
<xs:complexType name="ArrayOfDimension" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Dimension" nillable="true"
type="tns:Dimension"/>
  </xs:sequence>
</xs:complexType>
```

Dimension: This element MUST NOT be null and MUST conform to the schema of the **Dimension** complex type (section 2.2.4.90).

2.2.4.33 ArrayOfEndPoint

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfEndPoint** complex type specifies an array of connection termination points for a consumer **Web Part** such as a **report view** or a **scorecard**.

```
<xs:complexType name="ArrayOfEndPoint" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="EndPoint" nillable="true"
type="tns:EndPoint"/>
  </xs:sequence>
</xs:complexType>
```

EndPoint: This element MUST NOT be null and MUST conform to the schema of the EndPoint (section 2.2.4.95) complex type.

2.2.4.34 ArrayOfFirstClassElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfFirstClassElement** complex type specifies an array of first-class objects.

```
<xs:complexType name="ArrayOfFirstClassElement" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="FirstClassElement" nillable="true"
type="tns:FirstClassElement"/>
  </xs:sequence>
</xs:complexType>
```

FirstClassElement: This element MUST NOT be null and MUST conform to the schema of the **FirstClassElement** (section 2.2.4.99) complex type.

2.2.4.35 ArrayOfGridCell

Namespace: http://www.microsoft.com/performancepoint/scorecards

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The **ArrayOfGridCell** complex type specifies an array of cells used by a grid view such as the scorecard view (section 2.2.4.121).

```
<xs:complexType name="ArrayOfGridCell" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GridCell" nillable="true"
type="tns:GridCell"/>
  </xs:sequence>
</xs:complexType>
```

GridCell: This element MUST NOT be null and MUST conform to the schema of the **GridCell** (section 2.2.4.100) complex type.

2.2.4.36 ArrayOfGridDisplayElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

An array of elements for a **scorecard cell**.

```
<xs:complexType name="ArrayOfGridDisplayElement" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GridDisplayElement" nillable="true"
type="tns:GridDisplayElement"/>
  </xs:sequence>
</xs:complexType>
```

GridDisplayElement: This element MUST NOT be null and MUST conform to the schema of the **GridDisplayElement** (section 2.2.4.103) complex type.

2.2.4.37 ArrayOfGridHeaderItem

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfGridHeaderItem** complex type specifies an array of headers for a scorecard.

```
<xs:complexType name="ArrayOfGridHeaderItem" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GridHeaderItem" nillable="true"
type="tns:GridHeaderItem"/>
  </xs:sequence>
</xs:complexType>
```

GridHeaderItem: This element MUST NOT be null and MUST conform to the schema of the **GridHeaderItem** (section 2.2.4.116) complex type.

2.2.4.38 ArrayOfGridViewTransformReference

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfGridViewTransformReference** complex type specifies an array of references to a grid view transform.

```
<xs:complexType name="ArrayOfGridViewTransformReference"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GridViewTransformReference"
nillable="true" type="tns:GridViewTransformReference"/>
```


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```
  </xs:sequence>
</xs:complexType>
```

GridViewTransformReference: This element MUST NOT be null and MUST conform to the schema of the **GridViewTransformReference** (section 2.2.4.123) complex type.

2.2.4.39 ArrayOfHierarchy

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfHierarchy** complex type specifies an array of hierarchy values for a **dimension**.

```
<xs:complexType name="ArrayOfHierarchy" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Hierarchy" nillable="true"
type="tns:Hierarchy"/>
  </xs:sequence>
</xs:complexType>
```

Hierarchy: This element MUST NOT be null and MUST conform to the schema of the **Hierarchy** complex type (section 2.2.4.124).

2.2.4.40 ArrayOfIndicatorBand

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfIndicatorBand** complex type specifies an array of indicator bands.

```
<xs:complexType name="ArrayOfIndicatorBand" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="IndicatorBand" nillable="true"
type="tns:IndicatorBand"/>
  </xs:sequence>
</xs:complexType>
```

IndicatorBand: This element MUST NOT be null and MUST conform to the schema of the **IndicatorBand** (section 2.2.4.126) complex type.

2.2.4.41 ArrayOfKpi

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfKpi** complex type specifies an array of **Kpi** complex types (section 2.2.4.128) for a **scorecard**.

```
<xs:complexType name="ArrayOfKpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Kpi" nillable="true"
type="tns:Kpi"/>
  </xs:sequence>
</xs:complexType>
```

Kpi: This element MUST NOT be null, and MUST conform to the schema of the **Kpi.**

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2.2.4.42 ArrayOfKpiMeasure

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfKpiMeasure** complex type specifies an array of **KpiMeasure** complex types (section 2.2.4.129).

```
<xs:complexType name="ArrayOfKpiMeasure" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="KpiMeasure" nillable="true"
type="tns:KpiMeasure"/>
  </xs:sequence>
</xs:complexType>
```

KpiMeasure: This element MUST NOT be null and MUST conform to the schema of the **KpiMeasure**.

2.2.4.43 ArrayOfLevel

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfLevel** complex type defines an array of **Level** (section 2.2.4.131) complex type.

```
<xs:complexType name="ArrayOfLevel" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Level" nillable="true"
type="tns:Level"/>
  </xs:sequence>
</xs:complexType>
```

Level: This element MUST NOT be null and MUST conform to the schema of the **Level** (section 2.2.4.131) complex type.

2.2.4.44 ArrayOfMeasure

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfMeasure** complex type defines an array of **Measure** (section 2.2.4.133) complex type.

```
<xs:complexType name="ArrayOfMeasure" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Measure" nillable="true"
type="tns:Measure"/>
  </xs:sequence>
</xs:complexType>
```

Measure: This element MUST NOT be null and MUST conform to the schema of the **Measure** (section 2.2.4.133) complex type.

2.2.4.45 ArrayOfMember

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfMember** complex type defines an array of **Member** (section 2.2.4.134) complex type.

```
<xs:complexType name="ArrayOfMember" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
```


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```
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Member" nillable="true"
type="tns:Member"/>
  </xs:sequence>
</xs:complexType>
```

Member: This element MUST NOT be null and MUST conform to the schema of the **Member** (section 2.2.4.134) complex type.

2.2.4.46 ArrayOfMemberTransform

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfMemberTransform** complex type defines an array of **MemberTransform** (section 2.2.4.146) complex type.

```
<xs:complexType name="ArrayOfMemberTransform" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="MemberTransform" nillable="true"
type="tns:MemberTransform"/>
  </xs:sequence>
</xs:complexType>
```

MemberTransform: This element MUST NOT be null and MUST conform to the schema of the **MemberTransform** (section 2.2.4.146) complex type.

2.2.4.47 ArrayOfNamedSet

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfNamedSet** complex type defines an array of **NamedSet** (section 2.2.4.147) complex type.

```
<xs:complexType name="ArrayOfNamedSet" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="NamedSet" nillable="true"
type="tns:NamedSet"/>
  </xs:sequence>
</xs:complexType>
```

NamedSet: This element MUST NOT be null and MUST conform to the schema of the **NamedSet** (section 2.2.4.147) complex type.

2.2.4.48 ArrayOfNameInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfNameInfo** complex type<11> defines an array of **NameInfo** complex types (section 2.2.4.149).

```
<xs:complexType name="ArrayOfNameInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="NameInfo" nillable="true"
type="tns:NameInfo"/>
  </xs:sequence>
</xs:complexType>
```


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NameInfo: This element MUST NOT be null and MUST conform to the schema of **NameInfo**.

2.2.4.49 ArrayOfParameter

Namespace: http://www.microsoft.com/performancepoint/scorecards

A collection of parameters used in an analytic **query**.

```
<xs:complexType name="ArrayOfParameter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Parameter" nillable="true"
type="tns:Parameter"/>
  </xs:sequence>
</xs:complexType>
```

Parameter: A **Parameter** object (see section 2.2.4.154).

2.2.4.50 ArrayOfParameterDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfParameterDefinition** complex type defines an array of ParameterDefinition (section 2.2.4.155) complex type.

```
<xs:complexType name="ArrayOfParameterDefinition"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ParameterDefinition"
nillable="true" type="tns:ParameterDefinition"/>
  </xs:sequence>
</xs:complexType>
```

ParameterDefinition: This element MUST NOT be null and MUST conform to the schema of the **ParameterDefinition** (section 2.2.4.155) complex type.

2.2.4.51 ArrayOfParameterMapping

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfParameterMapping** complex type defines an array of ParameterMapping (section 2.2.4.156) complex type.

```
<xs:complexType name="ArrayOfParameterMapping" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ParameterMapping" nillable="true"
type="tns:ParameterMapping"/>
  </xs:sequence>
</xs:complexType>
```

ParameterMapping: This element MUST NOT be null and MUST conform to the schema of the **ParameterMapping** (section 2.2.4.156) complex type.

2.2.4.52 ArrayOfPropertyBag

Namespace: http://www.microsoft.com/performancepoint/scorecards

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The **ArrayOfPropertyBag** complex type defines an array of **PropertyBag** (section 2.2.4.158) elements.

```
<xs:complexType name="ArrayOfPropertyBag" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="PropertyBag" nillable="true"
type="tns:PropertyBag"/>
  </xs:sequence>
</xs:complexType>
```

PropertyBag: This element MUST NOT be null and MUST conform to the schema of the **PropertyBag** (section 2.2.4.158) complex type.

2.2.4.53 ArrayOfSetOperation

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfSetOperation** complex type specifies an array of **SetOperation** elements (see section 2.2.4.165)

```
<xs:complexType name="ArrayOfSetOperation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="SetOperation" nillable="true"
type="tns:SetOperation"/>
  </xs:sequence>
</xs:complexType>
```

SetOperation: This element MUST NOT be null and MUST conform to the schema of the **SetOperation** (section 2.2.4.165) complex type.

2.2.4.54 ArrayOfString

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfString** complex type specifies an array of string.

```
<xs:complexType name="ArrayOfString" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

string: This element MUST NOT be null and MUST be an **xs:string** ([XMLSCHEMA2] section 3.2.1).

2.2.4.55 ArrayOfTarget

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfTarget** complex type specifies an array of **Target** (section 2.2.4.170) complex types.

```
<xs:complexType name="ArrayOfTarget" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Target" nillable="true"
type="tns:Target"/>
  </xs:sequence>
```


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```
</xs:complexType>
```

Target: This element MUST NOT be null and MUST conform to the schema of the **Target** (section 2.2.4.170) complex type.

2.2.4.56 ArrayOfTimeIntelligenceDataSource

Namespace: http://www.microsoft.com/performancepoint/scorecards

A collection of **time intelligence** data source reference used in time intelligence parameter definitions.

```
<xs:complexType name="ArrayOfTimeIntelligenceDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="TimeIntelligenceDataSource"
nillable="true" type="tns:TimeIntelligenceDataSource"/>
  </xs:sequence>
</xs:complexType>
```

TimeIntelligenceDataSource: See **TimeIntelligenceDataSource** (section 2.2.4.171).

2.2.4.57 ArrayOfTimeIntelligenceFormula

Namespace: http://www.microsoft.com/performancepoint/scorecards

A collection of **time intelligence** parameter formulas.

```
<xs:complexType name="ArrayOfTimeIntelligenceFormula"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="TimeIntelligenceFormula"
nillable="true" type="tns:TimeIntelligenceFormula"/>
  </xs:sequence>
</xs:complexType>
```

TimeIntelligenceFormula: See **TimeIntelligenceFormula** (section 2.2.4.173).

2.2.4.58 ArrayOfTimeIntelligenceLevelBinding

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfTimeIntelligenceLevelBinding** complex type specifies an array of **time intelligence** binding elements.

```
<xs:complexType name="ArrayOfTimeIntelligenceLevelBinding"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="TimeIntelligenceLevelBinding"
nillable="true" type="tns:TimeIntelligenceLevelBinding"/>
  </xs:sequence>
</xs:complexType>
```

TimeIntelligenceLevelBinding: This element MUST NOT be null and MUST conform to the schema of the **TimeIntelligenceLevelBinding** complex type (section 2.2.4.174).

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2.2.4.59 Axis

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Axis** complex type specifies information about an axis in a query result.

```
<xs:complexType name="Axis" mixed="true" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Type" type="tns:AxisType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="FilterEmpty" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="PropertyList" type="tns:StringCollection"/>
    <xs:element minOccurs="1" maxOccurs="1" name="MemberSets"
type="tns:SerializableDictionary"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SortMode" type="tns:SortType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SortIndex" type="xs:int"/>
    <xs:element minOccurs="0" maxOccurs="1" name="SortTuple" type="tns:Tuple"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SortDescending" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SortPreservePeerGroups" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

Type: Specifies an **AxisType** simple type (section 2.2.5.7).

FilterEmpty: This value MUST be **TRUE** if the axis is not permitted to use empty values; otherwise, the value is **false**. The default is **false**.

PropertyList: Specifies a **StringCollection** complex type (section 2.2.4.169) of **dimension** properties. Each value in this **StringCollection** MUST be a valid intrinsic or custom **Multidimensional Expressions (MDX)** dimension properties.

MemberSets: Specifies a collection of **MemberSet** complex type objects (section 2.2.4.144).

SortMode: Specifies a **SortType** simple type (section 2.2.5.47).

SortIndex: Specifies a column index to sort by.

SortTuple: Specifies a **Tuple** complex type (section 2.2.4.180) to sort by.

SortDescending: This value MUST be **TRUE** if the filter axis MUST be sorted in descending order; otherwise, the value is **FALSE**.

SortPreservePeerGroups: This value MUST be **TRUE** if peer groups MUST be preserved during sorting; otherwise, the value is **FALSE**. Preserving peer groups includes hierarchical relationships and sorting is constrained to a parent's **child** objects. Alternatively, breaking peer groups ignore hierarchical relationships.

2.2.4.60 Banding

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Banding** complex type represents the **banding** settings of the **KPI target**.

```
<xs:complexType name="Banding" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="CustomBoundary" type="tns:ArrayOfDecimal"/>
  </xs:sequence>
  <xs:attribute name="Type" type="tns:BandType" use="required"/>
  <xs:attribute name="BandValue" type="xs:string"/>
  <xs:attribute name="ActualWorst" type="xs:decimal" use="required"/>
  <xs:attribute name="SpreadMinimum" type="xs:decimal" use="required"/>
  <xs:attribute name="SpreadMaximum" type="xs:decimal" use="required"/>
```


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```
</xs:complexType>
```

CustomBoundary: The list (1) of boundaries for bands. It does not include the minimum and maximum boundaries.

Type: The type of banding. See **BandType** simple type (section 2.2.5.8) for details.

BandValue: This attribute is reserved and MUST NOT be used.

ActualWorst: The worst value in the scale of actual values.

SpreadMinimum: The minimum boundary for values.

SpreadMaximum: The maximum boundary for values.

2.2.4.61 BpmException

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BpmException** complex type contains the details of a **server (2)** alert.

```
<xs:complexType name="BpmException" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="ErrorCode" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="EventLogged" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Message" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

ErrorCode: Identifies the alert type. MUST be one of the values specified in section 2.2.2.1.2.

EventLogged: MUST be **true** if the alert was logged by the server (2), **false** otherwise.

Message: A text description of the alert. The text MUST be included. The text MUST NOT be empty. The text MUST be in the language of the **UI culture** of the session.

2.2.4.62 BpmProperty

Namespace: http://www.microsoft.com/performancepoint/scorecards

This **BpmProperty** complex type is the abstract base type for BpmPropertyDate, BpmPropertyDecimal, BpmPropertyHyperlink, BpmPropertyHyperlink2, BpmPropertyLinkBase, BpmPropertyList, BpmPropertyListItem, BpmPropertyLongText, BpmPropertyText and BpmPropertyUser.

```
<xs:complexType name="BpmProperty" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="UniqueName" type="xs:string"/>
  <xs:attribute name="DisplayName" type="xs:string"/>
  <xs:attribute name="Description" type="xs:string"/>
  <xs:attribute name="Required" type="xs:boolean" use="required"/>
  <xs:attribute name="Visible" type="xs:boolean" use="required"/>
</xs:complexType>
```

UniqueName: The **UniqueName** attribute MUST be set to a string that is distinct from UniqueNames used for other instances of BpmProperty and derived types. It MUST NOT contain any of the following

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characters: [ ] . ` ~ # % & * { } | \ : " / ? < > and the string length MUST be less than 1000 characters.

DisplayName: The **DisplayName** attribute is the string that is provided to the user. It MUST be shorter than 1000 characters.

Description: The **Description** attribute describes the property. It MUST be shorter than 1000 characters.

Required: This attribute MUST be present and MUST be **true** if this property MUST be specified when an instance of the type is used; otherwise, **false**.

Visible: This attribute MUST be present and MUST be **true** if this attribute is presented to the user; otherwise, **false**.

2.2.4.63 BpmPropertyBool

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BpmPropertyBool** complex type defines a Boolean property. It extends the **BpmProperty** (section 2.2.4.62) type.

```
<xs:complexType name="BpmPropertyBool" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Value" type="xs:boolean" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Value: A Boolean value.

2.2.4.64 BpmPropertyDate

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BpmPropertyDate** complex type defines a **Date** property. It extends the **BpmProperty** (section 2.2.4.62) type.

```
<xs:complexType name="BpmPropertyDate" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Date" type="xs:dateTime" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Date: A required **dateTime** value. The property MUST be considered empty if set to 0001-01-01T00:00:00.

2.2.4.65 BpmPropertyDecimal

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BpmPropertyDecimal** complex type defines a **Decimal** property. It extends the **BpmProperty** (section 2.2.4.62) type.

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```
<xs:complexType name="BpmPropertyDecimal" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Decimal" type="xs:decimal" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Decimal: A decimal value.

2.2.4.66 BpmPropertyHyperlink

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type defines a **Hyperlink** property. This type extends **BpmPropertyLinkBase** (section 2.2.4.68).

This type is used to specify Hyperlinks as custom properties for types that extend **FirstClassElement** (section 2.2.4.99).

```
<xs:complexType name="BpmPropertyHyperlink" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmPropertyLinkBase"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.67 BpmPropertyHyperlink2

Namespace: http://www.microsoft.com/performancepoint/scorecards

The**BmpPropertyHyperlink2** complex type defines a **Hyperlink** property. This type extends **BpmPropertyLinkBase** (section 2.2.4.68).

This type is used to specify Hyperlinks as part of annotations for types that extend **FirstClassElement** complex type (section 2.2.4.99).

```
<xs:complexType name="BpmPropertyHyperlink2" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmPropertyLinkBase"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.68 BpmPropertyLinkBase

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BpmPropertyLinkBase** complex type defines a **Hyperlink** property. It extends the **BpmProperty** (section 2.2.4.62) type.

```
<xs:complexType name="BpmPropertyLinkBase" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Hyperlink" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```


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Hyperlink: Hyperlink **URL**. The attribute MUST NOT be null and MUST be a valid [RFC1738] URL or a string constant: "about:blank".

2.2.4.69 BpmPropertyList

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BmpPropertyList** complex type specifies zero, or one item of the **ArrayOfBpmPropertyListItem** complex type (section 2.2.4.24). It extends the **BpmProperty** complex type (section 2.2.4.62).

```
<xs:complexType name="BpmPropertyList" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="ListItems"
type="tns:ArrayOfBpmPropertyListItem"/>
      </xs:sequence>
      <xs:attribute name="SelectedIndex" type="xs:int" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ListItems: This element MUST NOT be null and MUST conform to the schema of the **ArrayOfBpmPropertyListItem**.

SelectedIndex: An integer value that MUST fall between zero and the length of **ListItems.**

2.2.4.70 BpmPropertyListItem

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BpmPropertyListItem** complex type specifies a name-value pair.

```
<xs:complexType name="BpmPropertyListItem" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="Name" type="xs:string"/>
  <xs:attribute name="Value" type="xs:string"/>
</xs:complexType>
```

Name: The string that MUST be present, MUST be shorter than 1000 characters, MUST NOT be empty after trimming leading and trailing **whitespaces**, and MUST NOT be null.

Value: The string that MUST be present, MUST be shorter than 1000 characters, MUST NOT be empty after trimming leading and trailing whitespaces, and MUST NOT be null.

2.2.4.71 BpmPropertyLongText

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type defines a Long Text property. The type extends **BpmProperty** (section 2.2.4.62).

```
<xs:complexType name="BpmPropertyLongText" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Text" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
```


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```
</xs:complexType>
```

Text: The long text value. If the **BpmProperty** (section 2.2.4.62) Required field is set to **true**, the value MUST NOT be empty after trimming leading and trailing **whitespaces** and MUST NOT be **null**. The text MUST contain fewer than 4000 characters.

2.2.4.72 BpmPropertyText

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type defines a **Text** property. The type extends **BpmProperty** (section 2.2.4.62).

```
<xs:complexType name="BpmPropertyText" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Text" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Text: The text value. If the **BpmProperty** (section 2.2.4.62) Required field is set to **true**, the value MUST NOT be empty after trimming leading and trailing **whitespaces** and MUST NOT be null. The text MUST be less than 1000 characters.

2.2.4.73 BpmPropertyUser

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type defines a **User** property. The type extends **BpmProperty** (section 2.2.4.62).

```
<xs:complexType name="BpmPropertyUser" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BpmProperty">
      <xs:attribute name="Login" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Login: The user **login name** in domain\user format. If the **BpmProperty** (section 2.2.4.62) Required field is set to **true**, the value MUST NOT be empty after trimming leading and trailing white space and MUST NOT be null. It MUST contain less than 1000 characters.

2.2.4.74 CalculatedFormulaInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a calculated **formula** in a **KpiMeasure** (section 2.2.4.129). This type is used to specify calculations as part of a **KPI**'s calculated metric.

```
<xs:complexType name="CalculatedFormulaInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="AliasInfoCollection"
type="tns:ArrayOfAliasInfo"/>
  </xs:sequence>
  <xs:attribute name="Formula" type="xs:string"/>
</xs:complexType>
```


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AliasInfoCollection: Specifies the array of AliasInfo elements used in the formula. This is of type **ArrayOfAliasInfo** (section 2.2.4.20) and MUST contain 0 or more valid **AliasInfo** (section 2.2.4.13) elements. If any of the **AliasInfo** objects fails validation, the **ErrorCode** MUST be one of the values specified in section 2.2.2.1.2.

A detailed specification of how exceptions are reported by the protocol **server (2)** is in section 2.2.2.1.

Formula: Specifies the formula for calculation using the aliases specified in **AliasInfoCollection**. Formula is of type string and MUST be no more than 1000 characters in length.

2.2.4.75 CalculatedMember

Namespace: http://www.microsoft.com/performancepoint/scorecards

Represents an **OLAP calculated member** in a **Dimension** complex type (section 2.2.4.90).<12>

```
<xs:complexType name="CalculatedMember" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:Member">
      <xs:attribute name="Expression" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Expression: A string containing the **MDX** statement for the OLAP calculated member.

2.2.4.76 Comment

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type represents a comment to be associated with a data entity. This class is the base class for **AnnotationComment** (section 2.2.4.19).

```
<xs:complexType name="Comment" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="Guid" xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"
use="required"/>
  <xs:attribute name="CreatedBy" type="xs:string"/>
  <xs:attribute name="CreatedDate" type="xs:dateTime" use="required"/>
  <xs:attribute name="Message" type="xs:string"/>
</xs:complexType>
```

Guid: Specifies the identity for this comment. MUST be formatted as a **GUID**.

CreatedBy: The name of the user who created this comment. MUST be shorter than 1000 characters.

CreatedDate: The data and time when this comment was created.

Message: The message body of this comment. MUST be shorter than 4000.

2.2.4.77 ConfiguredView

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies the **scorecard** view and configuration settings of how the scorecard displays and what end user actions are allowed. The protocol client that renders the scorecard MUST use this configuration when displaying it.

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```
<xs:complexType name="ConfiguredView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SecondClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="StatusFilters"
type="tns:StatusFilter"/>
        <xs:element minOccurs="0" maxOccurs="1" name="ToolbarOptions"
type="tns:ToolbarOptions"/>
        <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
        <xs:element minOccurs="0" maxOccurs="1" name="GridViewDefinition"
type="tns:GridViewDefinition"/>
      </xs:sequence>
      <xs:attribute name="AllowStatusFilter" type="xs:boolean" use="required"/>
      <xs:attribute name="AllowFilter" type="xs:boolean" use="required"/>
      <xs:attribute name="AllowSort" type="xs:boolean" use="required"/>
      <xs:attribute name="AllowAnnotations" type="xs:boolean" use="required"/>
      <xs:attribute name="EmptyRowsFilterMode" type="tns:ScorecardEmptyRowsFilterMode"
use="required"/>
      <xs:attribute name="AllowShowDetails" type="xs:boolean" use="required"/>
      <xs:attribute name="EnableTextwrap" type="xs:boolean" use="required"/>
      <xs:attribute name="AllowDynamicRowMemberExpansion" type="xs:boolean" use="required"/>
      <xs:attribute name="AllowDynamicColumnMemberExpansion" type="xs:boolean"
use="required"/>
      <xs:attribute name="AllowRowDrill" type="xs:boolean" use="required"/>
      <xs:attribute name="AllowColumnDrill" type="xs:boolean" use="required"/>
      <xs:attribute name="AlwaysShowAnnotationCellFlags" type="xs:boolean" use="required"/>
      <xs:attribute name="ExpandToFitWidth" type="xs:boolean" use="required"/>
      <xs:attribute name="HideScorecard" type="xs:boolean" use="required"/>
      <xs:attribute name="ShowStatusFiltersByDefault" type="xs:boolean" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

StatusFilters: Contains an array of 0 or more **StatusFilter** (section 2.2.4.167) **items**. Specifies the list (1) of status filters that can be applied to the scorecard.

ToolbarOptions: This element is of type **ToolbarOptions** (section 2.2.4.179) and specifies the configuration for the toolbar displayed in column headers of the scorecard.

DataSourceLocation: This element is of type **RepositoryLocation** (section 2.2.4.161) and specifies the location of the **data source (1)** the scorecard connects to for retrieving and displaying data.

GridViewDefinition: This element is of type **GridViewDefinition** (section 2.2.4.122) and specifies the definition of the grid based view displayed in the scorecard.

AllowStatusFilter: This attribute MUST be present and MUST be set to **true** if filtering by status is allowed in the scorecard; otherwise, **false**.

AllowFilter: This attribute MUST be present and MUST be set to **true** if filtering of rows is allowed in the scorecard; otherwise, **false**.

AllowSort: This attribute MUST be present and MUST be set to **true** if sorting of rows is allowed in the scorecard; otherwise, **false**.

AllowAnnotations: This attribute MUST be present and MUST be set to **true** if annotations are allowed to be entered in **cells** in the scorecard; otherwise, **false**.

EmptyRowsFilterMode: This attribute MUST be present. It is of type **ScorecardEmptyRowsFilterMode** (section 2.2.5.42) and specifies how empty rows MUST be handled in the scorecard.

AllowShowDetails: This attribute MUST be present and MUST be set to **true** if the protocol client MUST display the **Show Details** menu option in the scorecard; otherwise, **false**.

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EnableTextwrap: This attribute MUST be present and MUST be set to **true** if the protocol client MUST wrap the text in the scorecard cells; otherwise, **false**.

AllowDynamicRowMemberExpansion: This attribute MUST be present and MUST be set to **true** if row members in a scorecard are allowed to dynamically expand or collapse; otherwise, **false**.

AllowDynamicColumnMemberExpansion: This attribute MUST be present and MUST be set to **true** if column members in a scorecard are allowed to dynamically expand or collapse; otherwise, **false**.

AllowRowDrill: This attribute MUST be present and MUST be set to **true** if **drilldown** is allowed for members in rows; otherwise, **false**.

AllowColumnDrill: This attribute MUST be present and MUST be set to **true** if drilldown is allowed for members in columns; otherwise, **false**.

AlwaysShowAnnotationCellFlags: Reserved. MUST be set to **false** and MUST be ignored by the protocol client.

ExpandToFitWidth: This attribute MUST be present and MUST be set to **true** if the scorecard is expanded to fit the width of its container; otherwise, **false**.

HideScorecard: This attribute MUST be present and MUST be set to **true** if the scorecard MUST NOT be displayed; otherwise, **false**.

ShowStatusFiltersByDefault: This attribute MUST be present and MUST be set to **true** if filtering by status MUST be enabled by default; otherwise, **false**.

2.2.4.78 Cube

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Cube** complex type specifies the structure of a **cube**. It extends the complex type **NameInfo** complex type(section 2.2.4.149).

```
<xs:complexType name="Cube" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:NameInfo">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Dimensions"
type="tns:ArrayOfDimension"/>
        <xs:element minOccurs="0" maxOccurs="1" name="MeasureGroups"
type="tns:ArrayOfNameInfo"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Measures" type="tns:ArrayOfMeasure"/>
        <xs:element minOccurs="0" maxOccurs="1" name="NamedSets" type="tns:ArrayOfNamedSet"/>
      </xs:sequence>
      <xs:attribute name="Version" type="xs:int" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Dimensions: Specifies the **dimensions** in the cube. This is an array of **Dimension** (see section 2.2.4.90) **items** as defined in **ArrayOfDimension** (see section 2.2.4.19). This element MUST be present.

MeasureGroups: Specifies the **measure groups** in the cube. This is an array of **NameInfo** (see section 2.2.4.149) items as defined in **ArrayOfNameInfo** (see section 2.2.4.33). This element MUST be present.

Measures: Specifies the **measures** in the cube. This is an array of **Measure** (see section 2.2.4.133) items as defined in **ArrayOfMeasure** (see section 2.2.4.44). This element MUST be present.

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NamedSets: Specifies the **named sets** in the cube. This is an array of **NamedSet** (see section 2.2.4.147) items as defined in **ArrayOfNamedSet** (see section 2.2.4.47). This element MUST be present.

Version: Species the **major version** of the software on the **server (2)** that hosts the cube. MUST be a non-negative integer. This element MUST be 0 when the dimension is part of a non-**OLAP** data source. This element MUST be present.

2.2.4.79 Dashboard

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Dashboard** complex type defines a **dashboard**. It specifies the layout and content of the pages in the dashboard and, if the dashboard has been deployed, its deployment location.

The **Dashboard** complex type extends the **FirstClassElement** type (section 2.2.4.99).

```
<xs:complexType name="Dashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Pages"
type="tns:ArrayOfDashboardElement"/>
      </xs:sequence>
      <xs:attribute name="TemplateType" type="xs:string"/>
      <xs:attribute name="DeploymentPath" type="xs:string"/>
      <xs:attribute name="SitePath" type="xs:string"/>
      <xs:attribute name="MasterPagePath" type="xs:string"/>
      <xs:attribute name="MasterPageDisplayName" type="xs:string"/>
      <xs:attribute name="PageList" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Pages: Specifies the layout and content of pages in the dashboard. It is an array of DashboardElement **items** (section 2.2.4.80). This MUST be present.

TemplateType: Specifies the initial layout of the first page of the dashboard. This MUST be present and MUST be one of the values from the following table.

Value	Example	Meaning
Blank		A blank dashboard page.
Header2Columns		A dashboard page with a header zone above two column zones.
1Zone		A dashboard page with one zone.
2Columns		A dashboard page with two column zones.
3Columns		A dashboard page with three column zones.
2Rows		A dashboard page with two row zones.

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Value	Example	Meaning
3Rows		A dashboard page with three row zones.
ColumnSplitColumn		A dashboard page a column on the right and two rows zones on the left.

DeploymentPath: Specifies the **URL** where the dashboard is deployed. This MUST be a relative URL on the **site (2)** identified by the **SitePath** attribute.

SitePath: Specifies the URL of the site (2) where the dashboard will be deployed. This MUST be a relative URL on the protocol **server (2)** to which to deploy.

MasterPagePath: Specifies the URL of the **master page** used when the dashboard will be deployed. This MUST be a relative URL on the protocol server (2) to which to deploy.

MasterPageDisplayName: Specifies the display name of the master page used when the dashboard will be deployed.

PageList: Specifies whether or not each page in the deployed dashboard includes a page list.

Value	Meaning
True	A list (1) of pages will be displayed at the top of each deployed dashboard page, enabling users to switch between pages.
False	A list (1) of pages will not be displayed at the top of each deployed dashboard page.

2.2.4.80 DashboardElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **DashboardElement** complex type specifies the parts of a **Dashboard** (section 2.2.4.79) that have width and height.

The **DashboardElement** complex type extends the **SecondClassElement** type (section 2.2.4.163) and is the base type for **DashboardElementContainer** (section 2.2.4.81) and **DashboardItem** (section 2.2.4.83).

```
<xs:complexType name="DashboardElement" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SecondClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Height"
type="tns:DashboardElementSize"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Width"
type="tns:DashboardElementSize"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```


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Height: Specifies the height of the **DashboardElement**. This MUST be present. This MUST be a **DashboardElementSize** (see section 2.2.4.82).

Width: Specifies the width of the **DashboardElement**. This MUST be present. This MUST be a **DashboardElementSize**.

2.2.4.81 DashboardElementContainer

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **DashboardElementContainer** complex type specifies a group of **DashboardElement** complex types (section 2.2.4.80) that are displayed vertically or horizontally.

Each **dashboard** page is specified by a **DashboardElementContainer**.

Each zone on a dashboard page is specified by a **DashboardElementContainer**.

The **DashboardElementContainer** complex type extends the **DashboardElement**.

```
<xs:complexType name="DashboardElementContainer" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:DashboardElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="DashboardElements"
type="tns:ArrayOfDashboardElement"/>
      </xs:sequence>
      <xs:attribute name="Orientation" type="tns:LayoutOrientation" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

DashboardElements: Specifies the **DashboardElements** in the **DashboardElementContainer**. This is an array of **DashboardElements** (section 2.2.4.28).

Orientation: Specifies the orientation of the **DashboardElementContainer**. This is a **LayoutOrientation** complex type (section 2.2.5.33). This MUST be present.

2.2.4.82 DashboardElementSize

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies the width or height of a **DashboardElement** (section 2.2.4.80).

```
<xs:complexType name="DashboardElementSize" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="Measurement" type="xs:int" use="required"/>
  <xs:attribute name="Units" type="tns:SizeType" use="required"/>
</xs:complexType>
```

Measurement: Specifies the number of size units. This number MUST be positive and MUST be less than or equal to 2,147,483,647. This MUST be present.

Units: Specifies the type of size units specified by the **Measurement** attribute. This MUST be a **SizeType** (section 2.2.5.46). This MUST be present.

2.2.4.83 DashboardItem

Namespace: http://www.microsoft.com/performancepoint/scorecards

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The **DashboardItem** complex type specifies a single **report**, **scorecard**, or **filter** on a dashboard page. **DashboardItem** extends the **DashboardElement** (section 2.2.4.80).

```
<xs:complexType name="DashboardItem" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:DashboardElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="InboundParameters"
type="tns:ArrayOfParameterMapping"/>
        <xs:element minOccurs="0" maxOccurs="1" name="UnderlyingElementLocation"
type="tns:RepositoryLocation"/>
      </xs:sequence>
      <xs:attribute name="UnderlyingElementTypeName" type="xs:string"/>
      <xs:attribute name="AutoSizeWidth" type="xs:boolean" use="required"/>
      <xs:attribute name="AutoSizeHeight" type="xs:boolean" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

InboundParameters: Specifies an array of zero or more **ParameterMapping** (section 2.2.4.156) **items** which indicate any parameters coming from other elements on the **dashboard**. This element MUST be present.

UnderlyingElementLocation: Specifies the **RepositoryLocation** (section 2.2.4.161) for the contained element. This element MUST be present.

UnderlyingElementTypeName: Specifies the fully qualified name for the assembly class that provides the implementation of the element. This attribute MUST be present.<13>

AutoSizeWidth: Specifies whether the **DashboardItem** width is automatically set by the containing zone or uses a specific width. **true** indicates the **DashboardItem** width is controlled by the zone. **false** indicates the **DashboardItem** width is set by the **DashboardElement** (section 2.2.4.80) base. This element MUST be present.

AutoSizeHeight: Specifies whether the **DashboardItem** height is automatically set by the containing zone or uses a specific height. **true** indicates the **DashboardItem** width is controlled by the zone. **false** indicates **DashboardItem** width is set by the **DashboardElement** (section 2.2.4.80) base. This element MUST be present.

2.2.4.84 DataColumnMapping

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **DataColumnMapping** complex type specifies dimensional mapping information for a column of data.

```
<xs:complexType name="DataColumnMapping" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="UniqueName" type="xs:string"/>
  <xs:attribute name="KeyColumnName" type="xs:string"/>
  <xs:attribute name="SourceColumnName" type="xs:string"/>
  <xs:attribute name="FriendlyColumnName" type="xs:string"/>
  <xs:attribute name="ColumnType" type="tns:MappedColumnTypes" use="required"/>
  <xs:attribute name="FactAggregation" type="tns:FactAggregations" use="required"/>
  <xs:attribute name="ColumnDataType" type="tns:MappedColumnDataTypes" use="required"/>
</xs:complexType>
```

UniqueName: This attribute MUST be present. **UniqueName** specifies the unique name of the **dimension** that a column represents. The value MUST NOT be empty.

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ColumnType	Content
Ignore	The value MUST be an empty string.
Fact	The value MUST be an empty string.
Dimension	The value MUST be an empty string.
TimeDimension	The value MUST be an empty string.
Key	UniqueName specifies the unique name of the dimension that a column represents. It is used when referenced by another column mapping via the KeyColumnName. The value MUST NOT be empty.

KeyColumnName: This attribute MUST be present. The content of **KeyColumnName** is determined by the **ColumnType** as designated in the following table:

ColumnType	Content
Ignore	The attribute MUST be ignored.
Fact	The attribute MUST be ignored.
Dimension	KeyColumnName specifies the name of the tabular column that contains the UniqueName for the dimension. If this attribute is not present, the UniqueName of this column is used as the UniqueName for the dimension.
TimeDimension	KeyColumnName specifies the name of the tabular column that contains the UniqueName for the dimension. If this attribute is not present, the UniqueName of this column is used as the UniqueName for the dimension.
Key	The attribute MUST be ignored.

SourceColumnName: Specifies the tabular data source column name of the source for this mapping. This attribute MUST be present and MUST be a string of 1 or more characters.

FriendlyColumnName: Specifies a descriptive string for the tabular column name of the source for this mapping. This attribute MUST be present. The value MUST be a string of 1 or more characters.

ColumnType: Specifies the mapped column type. This attribute MUST be present. The value MUST conform to the **MappedColumnTypes** (Section 2.2.5.35) simple type.

FactAggregation: Specifies the aggregation method. This attribute MUST be present. If the **ColumnType** is not "Fact", the value is not used and MUST be "None". Otherwise, the value MUST conform to the **FactAggregations** (Section 2.2.5.18) simple type.

ColumnDataType: Specifies the type of data contained within the mapped column. This attribute MUST be present. The value MUST conform to the **MappedColumnDataTypes** (Section 2.2.5.34) simple type.

2.2.4.85 DataSource

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **DataSource** complex type specifies a connection to an external data provider.

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```
<xs:complexType name="DataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="CustomData" type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="CustomTimeIntelligenceSettings"
type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="DataTableMapping"
type="tns:DataTableMapping"/>
      </xs:sequence>
      <xs:attribute name="SourceName" type="xs:string"/>
      <xs:attribute name="ServerName" type="xs:string"/>
      <xs:attribute name="DatabaseName" type="xs:string"/>
      <xs:attribute name="CubeName" type="xs:string"/>
      <xs:attribute name="CubeDisplayName" type="xs:string"/>
      <xs:attribute name="FormattingDimensionName" type="xs:string"/>
      <xs:attribute name="FormattingDimensionDisplayName" type="xs:string"/>
      <xs:attribute name="FormattingDimensionType" type="tns:DimensionTypeEnum"
use="required"/>
      <xs:attribute name="ConnectionString" type="xs:string"/>
      <xs:attribute name="Roles" type="xs:string"/>
      <xs:attribute name="UseConnectionString" type="xs:boolean" use="required"/>
      <xs:attribute name="ConnectionContext" type="tns:ConnectionContext" use="required"/>
      <xs:attribute name="PassUserNameAsAdomdCustomData" type="xs:boolean" use="required"/>
      <xs:attribute name="ReadOnly" type="xs:boolean" use="required"/>
      <xs:attribute name="MinutesToCache" type="xs:int" use="required"/>
      <xs:attribute name="ServerMajorVersion" type="xs:int" use="required"/>
      <xs:attribute name="SubTypeId" type="xs:string"/>
      <xs:attribute name="TargetApplicationId" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

CustomData: String of custom data for the **data source (1)**. This element MUST be present.

For **ExcelServicesWorkbook** data sources, **CustomData** MUST contain an **ExcelServicesData** complex type object (section 2.2.4.97) serialized as an **XML document** and XML encoded.

For **ExcelWorkbook** data sources, **CustomData** MUST contain an **ExcelDataSet** complex type object (section 2.2.4.96) serialized as an XML document and XML encoded.

For all other data source types, **CustomData** MUST be an empty string.

CustomTimeIntelligenceSettings: Contains a string of custom **time intelligence** data for the data source. This element MUST be present.

For **ADOMD.NET** data sources, **CustomTimeIntelligenceSettings** MUST be a **TimeIntelligenceMdxSettings** complex type object (section 2.2.4.175) serialized as an XML document and XML encoded.

For all other data source types, this element MUST be an empty string.

DataTableMapping: Specifies how tabular data is mapped to multidimensional data for table-based data sources. This element MUST be present. This element is used for **ExcelServicesWorkbook**, **ExcelWorkbook**, **SqlTabularDataSource**, and **SpListDataSource** types. For other data source types, it MUST be set to **NULL** and MUST be ignored by the protocol **server (2)**.

SourceName: Specifies the type of the data source. This attribute MUST be present and MUST be one of the values specified in the following table.

Value	Meaning
ADOMD.NET	An **Analysis Services** data source.

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Value	Meaning
SqlTabularDataSource	A SQL Server table data source.
ExcelServicesWorkbook	An Excel Services **workbook**.
ExcelWorkbook	An embedded Excel workbook.
SpListDataSource	A list data source<14>.

ServerName: Specifies the name of the server (2) used by the data source. This attribute MUST be present. The content of **ServerName** is determined by the type of the data source as specified in the following table.

Type	Contents
ADOMD.NET	**ServerName** MUST be the host name of the server (2) running Analysis Services.
SqlTabularDataSource	**ServerName** MUST be the host name of the server (2) instance that hosts the tabular data source.
ExcelServicesWorkbook	**ServerName** MUST be the **URL** of the **site (2)** which hosts the data source.
ExcelWorkbook	**ServerName** MUST be an empty string.
SpListDataSource	**ServerName** MUST be the URL of the site (2) containing the **list (1)** used by the data source.

DatabaseName: Specifies the name of the database used by the data source. This attribute MUST be present. The content of **DatabaseName** is determined by the type of the data source as designated in the following table.

Type	Contents
ADOMD.NET	**DatabaseName** MUST be the name of the multidimensional database used by the data source.
SqlTabularDataSource	**DatabaseName** MUST be the name of the database used by the data source.
ExcelServicesWorkbook	**DatabaseName** MUST be the name of the **document library** containing the workbook.
ExcelWorkbook	**DatabaseName** MUST be an empty string.
SpListDataSource	**DatabaseName** MUST be the name of the site (2) list which contains the list (1) used by the data source.

CubeName: Specifies the name of the **cube** used by the data source. This attribute MUST be present. The content of **CubeName** is determined by the type of the data source as designated in the following table.

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Type	Contents
ADOMD.NET	**CubeName** MUST be the name of the cube used by the data source.
SqlTabularDataSource	**CubeName** MUST be the name of the table in the database used by the data source. **CubeName** MUST be in the form [*schema*].[*table*], where *schema* is the name of the table schema and *table* is the name of the table.
ExcelServicesWorkbook	**CubeName** MUST be the path and file name of the Excel Services workbook to be used.
ExcelWorkbook	**CubeName** MUST be an empty string.
SpListDataSource	**CubeName** MUST be the **GUID** of the list (1) used as the data source.

CubeDisplayName: Provides a display name for the **CubeName** used by the data source. This attribute MUST be present. The content of **CubeDisplayName** is determined by the type of the data source as designated in the following table.

Type	Contents
ADOMD.NET	**CubeDisplayName** is the name of the selected cube that is displayed to the user.
SqlTabularDataSource	**CubeDisplayName** is the name of the selected SQL table that is displayed to the user.
ExcelServicesWorkbook	**CubeDisplayName** is the name of the selected Excel Services workbook that is displayed to the user.
ExcelWorkbook	**CubeDisplayName** MUST be an empty string.
SpListDataSource	**CubeDisplayName** SHOULD be the name of the list (1).

FormattingDimensionName: Specifies the initial value for the **dimension** in the cube which contains the numerical formats for analytic grids or charts using the data source. This element is only used for **ADOMD.NET** data sources. It MUST be present for all data source types.

For non-**ADOMD.NET** data sources, this attribute MUST be an empty string.

For **ADOMD.NET** data sources, this attribute MAY be an empty string.

FormattingDimensionDisplayName: Provides a display name for the **FormattingDimensionName** used for **ADOMD.NET** data sources. This attribute MUST be present for all data source types. For non-**ADOMD.NET** data sources, this element MUST be an empty string.

FormattingDimensionType: Specifies the **DimensionTypeEnum** simple type (section 2.2.5.13) of the dimension used in **FormattingDimensionName**. This attribute MUST be present for all data source types. For non-**ADOMD.NET** data sources, this element MUST be set to "Other".

ConnectionString: Specifies the user-defined connection string used to connect to the data source when **UseConnectionString** is set to **TRUE**. This attribute MUST be present and MUST NOT be an empty string. The content of **ConnectionString** is determined by the type of the data source as designated in the following table.

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Type	Contents
ADOMD.NET	**ConnectionString** MUST be a valid connection string which connects to the **OLAP** data source. If the **ReadOnly** attribute is set to "true", **ConnectionString** MUST be an empty string.
SqlTabularDataSource	**ConnectionString** MUST be a valid SQL table connection string. If the **ReadOnly** attribute is set to "true", the **ConnectionString** MUST be empty.
ExcelServicesWorkbook	**ConnectionString** MUST be an empty string.
ExcelWorkbook	**ConnectionString** MUST be an empty string.
SpListDataSource	**ConnectionString** MUST be an empty string.

Roles: Specifies the database roles used when connecting to an **ADOMD.NET** data source. This attribute MUST be present for all data source types. For non-**ADOMD.NET** data sources, this attribute MUST be an empty string.

UseConnectionString: If **TRUE**, **ConnectionString** is used to connect to the data source. If **FALSE**, the contents of the **ConnectionString** property are ignored and the connection string is built internally. This attribute MUST be present, and is only used for **ADOMD.NET** and **SqlTabularDataSource** data source types.

ConnectionContext: Specifies the user **ConnectionContext** simple type (section 2.2.5.10) to be used for authentication to the data source. This attribute MUST be present, and MUST be ignored for **ExcelWorkbook** data source types.

PassUserNameAsAdomdCustomData: Specifies whether to pass the user name to **ADOMD.NET** as part of the **CustomData** property of the connection string. **CustomData** is sometimes used as an alternative identity, distinct from the connection identity. This attribute MUST be present, is only used by **ADOMD.NET** data sources and MUST be ignored by all other data source types.

ReadOnly: This attribute MUST be present and MUST be set to **TRUE** if the data source object is read-only for the **current user**; otherwise, this attribute is **FALSE**. When calling the **CreateDataSource** operation (section 3.1.4.3), if this attribute is set to **TRUE**, the server (2) responds with a **SOAP fault** containing the **ErrorCode** "CannotPublishReadOnlyElement"; otherwise, if this attribute is set to **FALSE**, the creation is successful.

MinutesToCache: Specifies the timeout in minutes for caching data source requests. This attribute MUST be present and the value MUST be a non-negative integer. If **MinutesToCache** is set to zero, the data source MUST NOT be cached.

ServerMajorVersion: Indicates the major version of the data source being used. This attribute MUST be present.

SubTypeId: Specifies the subtype of the data source. This attribute MUST be present and MUST be the same value as the **SourceName** element.

TargetApplicationId: Specifies the Secure Store ([MS-SSWPS]) **target application** identifier containing the credentials that MUST be used for authentication to the data source when **ConnectionContext** is set to **SecureStoreCredentials.** When **ConnectionContext** IS NOT set to **SecureStoreCredentials**, this attribute MUST be ignored. This attribute MUST be present.

2.2.4.86 DataTableMapping

Namespace: http://www.microsoft.com/performancepoint/scorecards

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The **DataTableMapping** complex type specifies how data from tabular data sources is mapped to multidimensional data.

```
<xs:complexType name="DataTableMapping" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ColumnMappings"
type="tns:ArrayOfDataColumnMapping"/>
    <xs:element minOccurs="0" maxOccurs="1" name="MasterTimeColumn"
type="tns:DataColumnMapping"/>
  </xs:sequence>
  <xs:attribute name="DateAggregationType" type="tns:DateAggregationTypes" use="required"/>
  <xs:attribute name="CalendarStartMonth" type="xs:int" use="required"/>
</xs:complexType>
```

ColumnMappings: Specifies the **ArrayOfDataColumnMapping** (section 2.2.4.29) **items** that provide the mapping information for each of the tabular columns. This element MUST be present.

If an item in **ColumnMappings** has a **Dimension** or **TimeDimension** MappedColumnType (see section 2.2.5.35), the item's **KeyColumnName** (section 2.2.4.84) MUST be either an empty string or MUST be equal to the **UniqueName** (section 2.2.4.84) of one of the other columns in the array with a **MappedColumnType** equal to Key (section 2.2.5.35).

MasterTimeColumn: Specifies the mapped **DateTime** column (section 2.2.5.34) in the tabular data source that is used as the time **dimension** for **time intelligence** calculations.

DateAggregationType: Specifies the list (1) of **DateAggregationTypes** (see section 2.2.5.12) that specifies which time period levels are used for the mapped time dimensions. This attribute MUST be present and MUST contain at least one **DateAggregationType**.

CalendarStartMonth: Specifies the fiscal year start month used for the time dimensions. This element MUST be present and MUST be one of these values: 0 for January, 1 for February, 2 for March, 3 for April, 4 for May, 5 for June, 6 for July, 7 for August, 8 for September, 9 for October, 10 for November, or 11 for December.

2.2.4.87 DefaultDimensionSetting

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies a default set of members in a **dimension**. It extends the Dimension (see section 2.2.4.90) type.

```
<xs:complexType name="DefaultDimensionSetting" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:Dimension">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Members" type="tns:Member"/>
      </xs:sequence>
      <xs:attribute name="IsVisible" type="xs:boolean" use="required"/>
      <xs:attribute name="ShowAsSlider" type="xs:boolean" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Members: Specifies a default set of **members (2)** in a dimension. Contains an array of 0 or more **Member** (see section 2.2.4.134) **items**. This element MUST be present.

IsVisible: This attribute is deprecated from the protocol and MUST NOT be used.

ShowAsSlider: This type is deprecated from the protocol and MUST NOT be used.

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2.2.4.88 DictionaryWrapperOfStringGridCell

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a collection of ArrayOfGridCells (see section 2.2.4.35) with associated string keys.

```
<xs:complexType name="DictionaryWrapperOfStringGridCell"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Keys" type="tns:ArrayOfString"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Values" type="tns:ArrayOfGridCell"/>
  </xs:sequence>
</xs:complexType>
```

Keys: An array of strings representing keys for addressing the contents of the **Values** array (see section 2.2.4.54).

Values: An array of **GridCells** (see section 2.2.4.100). This element MUST conform to the schema of the **ArrayOfGridCell** complex type (see section 2.2.4.35).

The **Keys** and **Values** MUST conform to the following:

- The number of **items** in **Keys** and the number of items in **Values** MUST be the same.
- Each item in **Values** MUST NOT be null.
- Each item in **Keys** MUST be a unique, non-null string.
- Each value in **Values** MUST have a corresponding key in **Keys** (that is, for each `Values[i]`, the corresponding key is `Keys[i]`).

2.2.4.89 DictionaryWrapperOfStringPropertyBag

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a collection of **ArrayOfPropertyBags** with associated string keys.

```
<xs:complexType name="DictionaryWrapperOfStringPropertyBag"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Keys" type="tns:ArrayOfString"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Values" type="tns:ArrayOfPropertyBag"/>
  </xs:sequence>
</xs:complexType>
```

Keys: An array of strings serving as keys for addressing the contents of the **Values** array. See **ArrayOfString**, section 2.2.4.54.

Values: An array of **PropertyBags**. See **ArrayOfPropertyBag**, section 2.2.4.52.

The **Keys** and **Values** MUST conform to the following:

- The number of **items** in **Keys** and the number of items in **Values** MUST be the same.
- Each item in **Values** MUST NOT be null.
- Each item in **Keys** MUST be a unique, non-null string.

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- Each value in **Values** MUST have a corresponding key in **Keys** (that is, for each `Values[i]`, the corresponding key is `Keys[i]`).

2.2.4.90 Dimension

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Dimension** complex type specifies the structure of a **dimension**. It extends the complex type **NameInfo** (section 2.2.4.149).

```
<xs:complexType name="Dimension" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:NameInfo">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="MeasureGroupNames"
type="tns:ArrayOfString"/>
        <xs:element minOccurs="1" maxOccurs="1" name="Type" type="tns:DimensionTypeEnum"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Hierarchies"
type="tns:ArrayOfHierarchy"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Levels" type="tns:ArrayOfLevel"/>
      </xs:sequence>
      <xs:attribute name="IsMeasureDimension" type="xs:boolean" use="required"/>
      <xs:attribute name="DefaultMemberName" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

MeasureGroupNames: Specifies a **list (1)** of the names of groupings of the **measures** in the dimension. This element MUST be present.

Type: Specifies the type of the dimension in the form of the simple type **DimensionTypeEnum** (section 2.2.5.13). This element MUST be present.

Hierarchies: Specifies the **hierarchies** in the dimension. A list (1) of the **Hierarchy** elements as defined in the complex type **ArrayOfHierarchy** (section 2.2.4.39). The **Hieararchy.Levels** collection will contain only the **Levels** that are used in that **Hierarchy**. This element MUST be present.

Levels: Specifies the **levels** in the dimension. A list (1) of the Level elements as defined in the complex type **ArrayOfLevel** (section 2.2.4.43). The **Dimension.Levels** collection will contain all of the **Levels** that are used in all of the **Hierarchies** in a **Dimension**. This element MUST be present.

IsMeasureDimension: Specifies if the dimension is a measure dimension. This value MUST be **TRUE** when the value of **Type** is "Measure"; otherwise, it is **FALSE**. This element MUST be present.

DefaultMemberName: Specifies the unique name of the **default member** for the dimension. The length of the value MUST NOT exceed 1000 characters. This element MUST be present.

2.2.4.91 Element

Namespace: http://www.microsoft.com/performancepoint/scorecards

This abstract class specifies basic metadata about an **item**. This class is the base class for FirstClassElement and SecondClassElement.

```
<xs:complexType name="Element" abstract="true" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Properties" type="tns:ArrayOfBpmProperty"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Comments" type="tns:ArrayOfComment"/>
  </xs:sequence>
```


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```
</xs:complexType>
```

Properties: Specifies properties associated with the Element. This element MUST be present. Contains an array of 0 or more BpmProperty items.

Comments: Specifies comments associated with the Element. This element MUST be present. Contains an array of 0 or more Comment items.

2.2.4.92 ElementVersion

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies the version information used to distinguish different instances of a FirstClassElement.

```
<xs:complexType name="ElementVersion" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="Major" type="xs:int" use="required"/>
  <xs:attribute name="Minor" type="xs:int" use="required"/>
</xs:complexType>
```

Major: The major version number of the **FirstClassElement**. This attribute MUST be present and MUST be 0 or greater and MUST be less than or equal to 2,147,483,647.

Minor: The minor version number of the **FirstClassElement**. This attribute MUST be present and MUST be 0 or greater and MUST be less than or equal to 2,147,483,647.

2.2.4.93 EliminateDescendantsSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to eliminate **descendant members (2)**, of the member (2) specified by **Name** (see section 2.2.4.165), from a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="EliminateDescendantsSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.94 EliminateMemberSetOp

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type extends the **SetOperation** (section 2.2.4.165) type. It defines an operation to eliminate a **member (2)**, specified by **Name** (see section 2.2.4.165), from a **MemberSet** (see section 2.2.4.144).

```
<xs:complexType name="EliminateMemberSetOp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SetOperation"/>
  </xs:complexContent>
</xs:complexType>
```


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2.2.4.95 EndPoint

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type defines the receiving end of a connection between a **Web Part** that provides parameter values such as a **filter** or a **scorecard**, and a Web Part that consumes parameter values, such as a report view or a scorecard.

```
<xs:complexType name="EndPoint" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="Category" type="tns:EndPointCategory" use="required"/>
  <xs:attribute name="UniqueName" type="xs:string"/>
  <xs:attribute name="DisplayName" type="xs:string"/>
  <xs:attribute name="AcceptsMultipleFilterLinks" type="xs:boolean" use="required"/>
</xs:complexType>
```

Category: This attribute describes the category of the **EndPoint** as defined in EndPointCategory. It MUST be present.

UniqueName: This attribute is a string that represents the unique name of the **EndPoint**. It MUST be present.

DisplayName: This attribute is a string that represents the display name of the **EndPoint**. It MUST be present.

AcceptsMultipleFilterLinks: This attribute MUST be present and MUST be **true** if the **EndPoint** can accept multiple connections from a filter or a scorecard; otherwise, **false**.

2.2.4.96 ExcelDataSet

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the Excel **workbook** ([MS-XLS]) data for an **ExcelWorkbook** data source.

```
<xs:complexType name="ExcelDataSet" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="CompressedDataTable" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ExcelFileBlob" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TableMapping" type="tns:DataTableMapping"/>
  </xs:sequence>
  <xs:attribute name="UseFirstRowHeaders" type="xs:boolean" use="required"/>
</xs:complexType>
```

CompressedDataTable: An ADO.NET **DataTable** object (as described in [DataTable]), which contains all of the rows and columns of data in the embedded workbook. The **DataTable** object MUST be serialized into binary format as specified in [MS-NRBF], then compressed using GZIP compression as specified in [RFC1952], and then encoded with **base64 encoding**.

ExcelFileBlob: Contains the embedded Excel workbook. This element MUST be present and MUST contain a valid workbook file containing the data for the data source. The file contents MUST be compressed using GZIP compression as specified in [RFC1952] and then MUST be encoded with base64 encoding.

TableMapping: This attribute is deprecated from the protocol and MUST NOT be used.

UseFirstRowHeaders: This attribute MUST be present and MUST be **true** if the first row in the embedded spreadsheet consists of headers; otherwise, **false**.

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2.2.4.97 ExcelServicesData

Namespace: http://www.microsoft.com/performancepoint/scorecards

Describes an Excel Services ([MS-ESP]) data connection used by Excel Services data sources and Excel Services reports.

```
<xs:complexType name="ExcelServicesData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="WorkbookParameters"
type="tns:PropertyBag"/>
  </xs:sequence>
  <xs:attribute name="SharePointSite" type="xs:string"/>
  <xs:attribute name="DocumentLibrary" type="xs:string"/>
  <xs:attribute name="DocumentLibraryRootFolder" type="xs:string"/>
  <xs:attribute name="DocumentLibraryDisplay" type="xs:string"/>
  <xs:attribute name="FolderFileName" type="xs:string"/>
  <xs:attribute name="FileName" type="xs:string"/>
  <xs:attribute name="ItemName" type="xs:string"/>
  <xs:attribute name="ViewOptions" type="tns:ExcelServicesViewOptions" use="required"/>
  <xs:attribute name="ToolbarType" type="tns:ExcelServicesToolbarType" use="required"/>
  <xs:attribute name="ToolbarOptions" type="tns:ExcelServicesToolbarOptions" use="required"/>
</xs:complexType>
```

WorkbookParameters: Specifies the **PropertyBag** (section 2.2.4.158) containing the parameters that are passed to the **workbook** when opening the data source. This element MUST be present.

SharePointSite: Specifies the **URL** of the **site (2)** containing an Excel Services data source. This attribute MUST be present. **SharePointSite** MUST only be used for Excel Services reports.

DocumentLibrary: Specifies the **GUID** of the **document library** that contains the data source. This attribute MUST be present.

DocumentLibraryRootFolder: Specifies the root folder of the document library. This attribute MUST be present.

DocumentLibraryDisplay: Specifies the display name of the document library. This attribute MUST be present.

FolderFileName: Specifies the path and file name of the Excel Services workbook. This attribute MUST be present. **FolderFileName** MUST only be used for Excel Services reports.

FileName: Specifies the file name of the Excel Services workbook. This attribute MUST be present. FileName MUST only be used for Excel Services reports.

ItemName: Specifies the name of the **published item** in the Excel Service workbook used as the data source. This attribute MUST be present.

ViewOptions: Specifies the combination of one or more **ExcelServicesViewOptions** (section 2.2.5.17) that control how the user is allowed to interact with the Excel Services report. This attribute MUST be present.

ToolbarType: Specifies the **ExcelServicesToolbarType** (section 2.2.5.16) that controls which toolbar is shown in the Excel Services report. This attribute MUST be present.

ToolbarOptions: Specifies the combination of one or more **ExcelServicesToolbarOptions** (section 2.2.5.15) for the toolbar displayed on the report. This attribute MUST be present.

2.2.4.98 Filter

Namespace: http://www.microsoft.com/performancepoint/scorecards

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The **Filter** complex type specifies a **filter**.

```
<xs:complexType name="Filter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="BeginPoints"
type="tns:ArrayOfParameterDefinition"/>
        <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
        <xs:element minOccurs="0" maxOccurs="1" name="CustomData" type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="EndPoints" type="tns:ArrayOfEndPoint"/>
      </xs:sequence>
      <xs:attribute name="SubTypeId" type="xs:string"/>
      <xs:attribute name="ReadOnly" type="xs:boolean" use="required"/>
      <xs:attribute name="SelectionMode" type="tns:FilterSelectionMode" use="required"/>
      <xs:attribute name="Visualization" type="xs:string"/>
      <xs:attribute name="RendererClassName" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

BeginPoints: Specifies the available connection sources to filter and set conditions for the display of other reports and **scorecards**. This element MUST be present, and the array MUST contain at least one **ParameterDefinition** complex type (section 2.2.4.155). This element MUST conform to the schema of the **ArrayOfParameterDefinition** complex type (section 2.2.4.50).

DataSourceLocation: Specifies the **data source (1)** for the selectable filter values. This element MUST be present. This element MUST conform to the schema of the **RepositoryLocation** complex type (section 2.2.4.161). This element MUST contain the **RepositoryLocation** of a data source (1).

CustomData: Specifies custom data for the filter. This element MUST be present. If **SubTypeId** does not contain a custom value, **CustomData** MUST contain an empty string. If **SubTypeId** does contain a custom value, **CustomData** MAY be used depending on the implementation of the third-party filter. The specific content will be defined by the implementer of the custom filter.

EndPoints: Specifies available connections destinations for filtering and controlling the conditional visibility of the filter. This element MUST be present, and the array MUST be empty if the **SubTypeId** is not a custom value. This element MUST conform to the schema of the **ArrayOfEndPoint** complex type (section 2.2.4.33).

SubTypeId: Specifies the identifier for the type of the filter. This attribute MUST be present. The value MUST NOT be empty. It MUST NOT be longer than 60 characters. It MUST NOT contain the characters ', ", or \. Each **ParameterDefinition** in the **BeginPoints** of the filter MUST have a **CustomDefinition** that is valid for the specified **SubTypeId**. If the filter is a third-party filter, the value MUST NOT be one of the values in the following table. Otherwise, the value of **SubTypeId** MUST be one of the values specified in the following table.

Value	Content
FixedValues	Specifies a filter that contains selections provided from a tabular data source (1).
MDXQuery	Specifies a filter that contains selections provided by an **MDX** query.
MemberSelection	Specifies a filter that contains selections provided by selecting members from a data source (1).
NamedSets	Specifies a filter that contains selections provided from a **named set** definition.

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Value	Content
TimeIntelligence	Specifies a filter that contains selections provided by a **time intelligence** mapped data source (1).
TimeIntelligencePostFormula	Specifies a filter that contains selections provided by a custom **formula** applied against a time intelligence mapped data source (1).

ReadOnly: This element is ignored if **SubTypeId** is "FixedValues", "MDXQuery", "MemberSelection", "NamedSets", "TimeIntelligence", or "TimeIntelligencePostFormula". It MAY be used by any other **SubTypeId**. This attribute MUST be present and MUST be **TRUE** if the filter is read-only; otherwise, this element is **FALSE**.

SelectionMode: Specifies the selection mode that the filter supports. The attribute MUST be present. The value MUST be one of the enumerated values specified in the **FilterSelectionMode** simple type (section 2.2.5.19).

Visualization: Specifies the type of visualization for the filter. The attribute MUST be present. The value MUST be one of the following: "SingleSelectList", "SingleSelectTree", "MultiSelectTree", "TimeIntelligenceCalendar", or "Custom".

RendererClassName: Specifies the fully qualified name for the assembly class that provides the rendering for the filter. This attribute MUST be present. If **SubTypeId** is "FixedValues", "MDXQuery", "MemberSelection", "NamedSets", "TimeIntelligence", or "TimeIntelligencePostFormula" the value MUST NOT be empty; otherwise, this element MUST be the assembly-qualified name of the custom type.

2.2.4.99 FirstClassElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **FirstClassElement** complex type is an abstract class that represents an object that is versionable. This is the base class for the complex types **Dashboard** (section 2.2.4.79), **DataSource** (section 2.2.4.85), **Scorecard** (section 2.2.4.162), **ReportView** (section 2.2.4.160), **Kpi** (section 2.2.4.128) and **Indicator** (section 2.2.4.125).

```
<xs:complexType name="FirstClassElement" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:Element">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Version" type="tns:ElementVersion"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Location"
type="tns:RepositoryLocation"/>
      </xs:sequence>
      <xs:attribute name="Folder" type="xs:string"/>
      <xs:attribute name="CreatedBy" type="xs:string"/>
      <xs:attribute name="CreatedDate" type="xs:dateTime" use="required"/>
      <xs:attribute name="ContentType" type="tns:FCOContentType" use="required"/>
      <xs:attribute name="LastModified" type="xs:dateTime" use="required"/>
      <xs:attribute name="ModifiedBy" type="xs:string"/>
      <xs:attribute name="CheckedOutTo" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Version: The **ElementVersion** complex type (section 2.2.4.92) information of the object. This value is optional, and has a default value of zero for the major and minor version. The major version will

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increase when the **child** classes **Dashboard**, **DataSource**, **Scorecard**, **ReportView**, **Kpi**, and **Indicator** are created and updated.

Location: The location information of the object, as specified by the **RepositoryLocation** complex type (section 2.2.4.161).

Folder: The folder that the object belongs to, in the form of "folder1\subfolder2\subfolder3". This value is optional, and has a default value of empty string.

CreatedBy: The user who initially created the object. This value is optional, and if it is set to the value of null, the **server (2)** will set it to the value of the actual user creating it.

CreatedDate: The date the object was initially created. This value MUST be set by the server (2) upon **FirstClassElement** creation.

ContentType: The content type of the object in the form of **FCOContentType** simple type (section 3.1.4.36.4.1). This value MUST be set by the server (2) upon **FirstClassElement** creation.

LastModified: The date this version of the object was last modified. This value MUST be set by the server (2) upon **FirstClassElement** creation and modification.

ModifiedBy: The user who last modified the object. This value is optional, and if it is set to the value of null, the server (2) will set it the value of the actual user modifying it.

CheckedOutTo: The user who currently has the object checked out. This value is optional and has a default value of empty string.

When creating **dashboard** content in a content store, the dashboard content SHOULD contain at least one **BpmProperty** complex type (section 2.2.4.62).<15> The **BpmProperty's UniqueName** property is "8dd07d4d87794510afdb1f07664359bc_Element_Name" which maps to the SharePoint list property "Title", required for a SharePoint list item. The Description property is "8dd07d4d87794510afdb1f07664359bc_Element_Description" and maps to the SharePoint list property "Description", which is optional. "8dd07d4d87794510afdb1f07664359bc_Element_Owner" maps to the SharePoint list property "Person Responsible", which is also optional.

2.2.4.100 GridCell

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies a single **cell** used by the **scorecard** grid view and the analytic grid view.

The following **Unified Modeling Language (UML)** class diagram shows the **GridCell** and its relationship with other classes.

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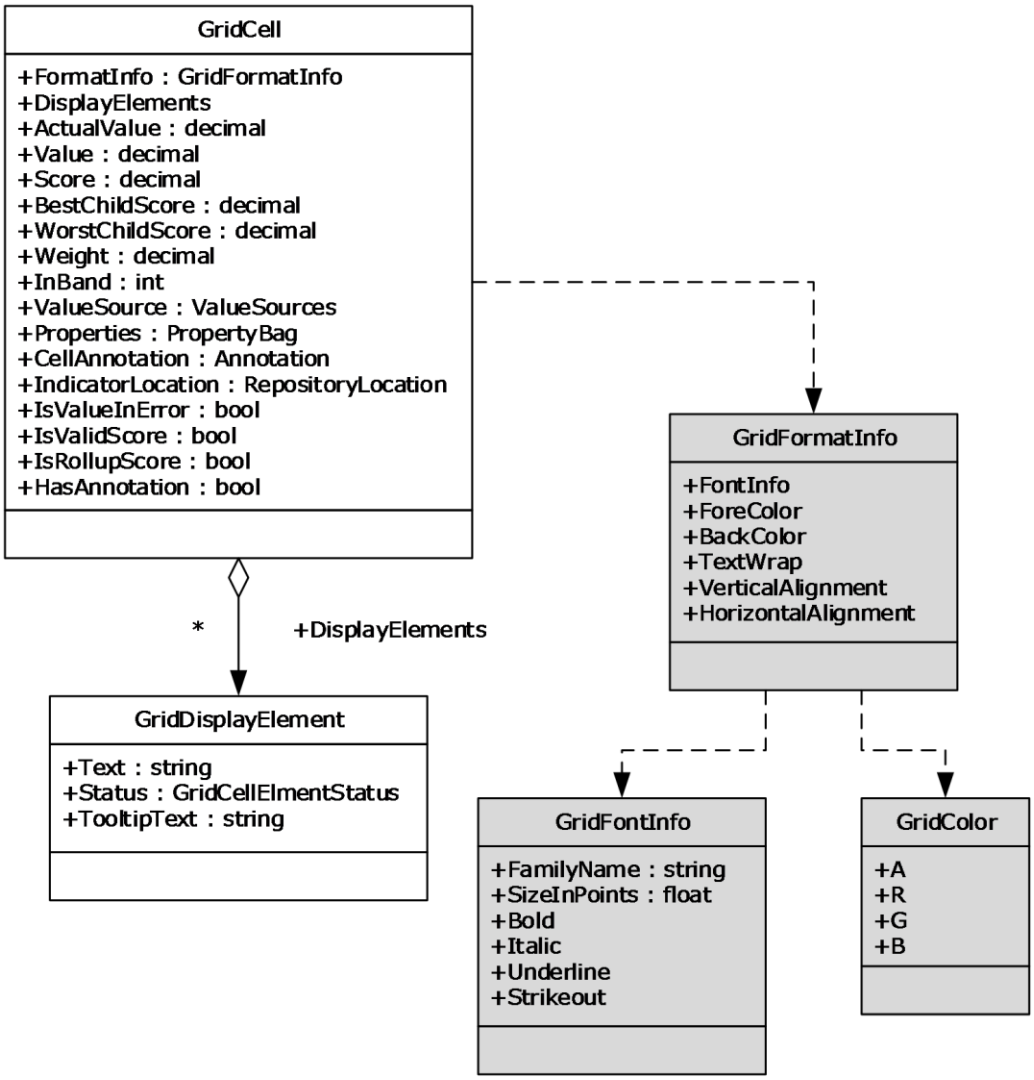


Figure 2: GridCell in relation to other classes

```
<xs:complexType name="GridCell" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="FormatInfo" type="tns:GridFormatInfo"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Properties" type="tns:PropertyBag"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DisplayElements"
type="tns:ArrayOfGridDisplayElement"/>
    <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="1" maxOccurs="1" name="InBand" type="xs:int"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CellAnnotation" type="tns:Annotation"/>
  </xs:sequence>
  <xs:attribute name="Value" type="xs:decimal" use="required"/>
  <xs:attribute name="ActualValue" type="xs:decimal" use="required"/>
  <xs:attribute name="Score" type="xs:decimal" use="required"/>
  <xs:attribute name="Weight" type="xs:decimal" use="required"/>
  <xs:attribute name="BestChildScore" type="xs:decimal" use="required"/>
  <xs:attribute name="WorstChildScore" type="xs:decimal" use="required"/>
  <xs:attribute name="IsValueInError" type="xs:boolean" use="required"/>
  <xs:attribute name="HasAnnotation" type="xs:boolean" use="required"/>
  <xs:attribute name="IsRollupScore" type="xs:boolean" use="required"/>
  <xs:attribute name="ValueSource" type="tns:ValueSources" use="required"/>
```


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```
    <xs:attribute name="IsValidScore" type="xs:boolean" use="required"/>
  </xs:complexType>
```

FormatInfo: Specifies overriding styles applied to the **GridCell**, as defined in GridFormatInfo. Any style changed on the GridFormatInfo overrides the default style.

Properties: This is a property bag as defined in PropertyBag. This property allows third parties to specify custom properties for a single grid view cell.

DisplayElements: Specifies a collection of GridDisplayElement as defined in ArrayOfGridDisplayElement. Each cell MUST contain zero or more visible elements such as **actual**, **target**, **variance**, **indicator**, and **score**. Each visible element is represented as a GridDisplayElement in this collection.

IndicatorLocation: If the **GridCell** contains an **indicator**, this property MUST point to the indicator location, as defined in RepositoryLocation. For built-in indicators, define only the **RepositoryLocation's ItemUrl** attribute (section 2.2.4.161) as "/PPSBUILTININDICATORS/**000**_.00", replacing the **000** with the Indicator ID.

Indicator	ID
Stoplight	0
Stoplight (Centered)	1
2 light – Small	2
2 light - Small (Centered)	3
2 light - Medium	4
2 light - Medium (Centered)	5
2 light – Large	6
2 light - Large (Centered)	7
Stoplight – Small	8
Stoplight - Small (Centered)	9
Stoplight – Medium	10
Stoplight - Medium (Centered)	11
Stoplight – Large	12
Stoplight - Large (Centered)	13
Stoplight E - Small	14
Stoplight E - Small (Centered)	15
Stoplight D - Small (Centered)	16
Stoplight D – Medium	17
Stoplight D - Medium (Centered)	18
Stoplight A – Small	19
Stoplight A - Small (Centered)	20

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Indicator	ID
Stoplight A – Medium	21
Stoplight A - Medium (Centered)	22
Stoplight A - Medium (Centered)	23
Stoplight A – Large	24
Stoplight A - Large (Centered)	25
Stoplight B - Small	26
Stoplight B - Small (Centered)	27
Stoplight B - Medium	28
Stoplight B - Medium (Centered)	29
Stoplight B - Large	30
Stoplight B - Large (Centered)	31
Cylinder	32
Cylinder (Centered)	33
Gradient	34
Gradient (Centered)	35
Thermometer	36
Thermometer (Centered)	37
Half Gauge	38
Half Gauge (Centered)	39
Reverse Half Gauge	40
Reverse Half Gauge (Centered)	41
Progress 4 Bar	42
Progress 4 Bar (Centered)	43
Progress 5 Bar	44
Progress 5 Bar (Centered)	45
Progress 6 Bar	46
Progress 6 Bar (Centered)	47
Progress 7 Bar	48
Progress 7 Bar (Centered)	49
Progress 8 Bar	50
Progress 8 Bar (Centered)	51
Progress 9 Bar	52

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Indicator	ID
Progress 9 Bar (Centered)	53
Progress 10 Bar	54
Progress 10 Bar (Centered)	55
Progress 4 Bar - Medium	56
Progress 4 Bar - Medium (Centered)	57
Progress 5 Bar - Medium	58
Progress 5 Bar - Medium (Centered)	59
Progress 6 Bar - Medium	60
Progress 6 Bar - Medium (Centered)	61
Progress 7 Bar - Medium	62
Progress 7 Bar - Medium (Centered)	63
Progress 8 Bar - Medium	64
Progress 8 Bar - Medium (Centered)	65
Progress 9 Bar - Medium	66
Progress 9 Bar - Medium (Centered)	67
Progress 10 Bar - Medium	68
Progress 10 Bar - Medium (Centered)	69
Progress 4 Bar - Large	70
Progress 4 Bar - Large (Centered)	71
Progress 5 Bar – Large	72
Progress 5 Bar - Large (Centered)	73
Progress 6 Bar – Large	74
Progress 6 Bar - Large (Centered)	75
Progress 7 Bar – Large	76
Progress 7 Bar - Large (Centered)	77
Progress 8 Bar – Large	78
Progress 8 Bar - Large (Centered)	79
Progress 9 Bar – Large	80
Progress 9 Bar - Large (Centered)	81
Progress 10 Bar – Large	82
Progress 10 Bar - Large (Centered)	83
Vertical Bar – Small	84

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Indicator	ID
Vertical Bar - Small (Centered)	85
Vertical Bar –Medium	86
Vertical Bar -Medium (Centered)	87
Vertical Bar – Large	88
Vertical Bar - Large (Centered)	89
Smiley - Small	90
Smiley - Small (Centered)	91
Smiley - Medium	92
Smiley - Medium (Centered)	93
Smiley B - Small	94
Smiley B - Small (Centered)	95
Smiley B -Medium	96
Smiley B -Medium (Centered)	97
Smiley B - Large	98
Smiley B - Large (Centered)	99
Road Sign	100
Road Sign (Centered)	101
Weather	102
Weather (Centered)	103
Operators	104
Operators (Centered)	105
Flags - Small	106
Flags - Small (Centered)	107
Flags - Medium	108
Flags - Medium (Centered)	109
Flags - Large	110
Flags - Large (Centered)	111
Check - Small	112
Check - Small (Centered)	113
Check - Medium	114
Check - Medium (Centered)	115
Check - Large	116

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Indicator	ID
Check - Large (Centered)	117
Check A - Small	118
Check A - Small (Centered)	119
Check - Medium	120
Check - Medium (Centered)	121
Check - Large	122
Check - Large (Centered)	123
Quarters – Small	124
Quarters - Small (Centered)	125
Quarters - Medium	126
Quarters - Medium (Centered)	127
Quarters - Large	128
Quarters - Large (Centered)	129
Red To Black - Small	130
Red To Black - Small (Centered)	131
Red To Black - Medium	132
Red To Black - Medium (Centered)	133
Red To Black - Large	134
Red To Black - Large (Centered)	135
Up Trend B – Small	136
Up Trend B - Small (Centered)	137
Down Trend B – Small	138
Down Trend B - Small (Centered)	139
Gray Trend B – Small	140
Gray Trend B - Small (Centered)	141
Up Trend - Small	142
Up Trend - Small (Centered)	143
Down Trend -Small	144
Down Trend -Small (Centered)	145
Gray Trend - Small	146
Gray Trend - Small (Centered)	147
Up Trend - Medium	148

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Indicator	ID
Up Trend - Medium (Centered)	149
Down Trend - Medium	150
Down Trend - Medium (Centered)	151
Gray Trend - Medium	152
Gray Trend- Medium (Centered)	153
Up Trend – Large	154
Up Trend - Large (Centered)	155
Down Trend – Large	156
Down Trend - Large (Centered)	157
Gray Trend – Large	158
Gray Trend - Large (Centered)	159

InBand: If the GridCell contains an **indicator**, this property MUST contain the index to the indicator band (see Indicator.IndicatorBands) or -1 if the cell contains no data (see **Indicator**.NoDataIndicatorBand).

CellAnnotation: If the property HasAnnotation is set to **true**, **CellAnnotation** MUST NOT be null and it MUST contain a valid Annotation instance.

Value: Specifies the numeric value for the metric associated with the GridCell. The value represents the decimal value of the metric from a column or row that contains that cell. If the metric is a **Target**, Value contains the Target value for that cell. The same happens for other metric types, like **Actual** and **Aggregation**.

ActualValue: The cell can either be a **target** or an **actual** and corresponds to the value of the recorded fact. Otherwise, this value **MUST** be zero.

Score: Specifies the calculated **score** for a target cell.

Weight: Specifies the weight of the GridCell on weighted **rollup** calculations.

BestChildScore: This property keeps track of the best score on cells that are located below the current GridCell on the same column.

WorstChildScore: This property keeps track of the worst score on cells that are located below the GridCell on the same column.

IsValueInError: This attribute MUST be **true** if the value for the **GridCell** could not be retrieved from the **data source (1)** or could not be calculated; otherwise, **false**.

HasAnnotation: This attribute MUST be **true** if the **GridCell** contains annotations; otherwise, **false**. The annotations are stored on the **CellAnnotation** property.

IsRollupScore: This attribute MUST be **true** if the **GridCell** has a calculated rollup score; otherwise, **false**.

ValueSource: Represents the type of calculation used to compute the value of the **GridCell**, as defined in ValueSources.

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IsValidScore: This attribute MUST be **true** if the scoring engine was able to calculate the score for this cell; otherwise, **false**.

2.2.4.101 GridCellSet

Namespace: http://www.microsoft.com/performancepoint/scorecards

This class specifies the cells used to represent a scorecard or analytic grid. The representation is based on a two dimensional array of GridCell elements indexed by objects of type GridHeaderItem.

```
<xs:complexType name="GridCellSet" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Table"
type="tns:DictionaryWrapperOfStringGridCell"/>
  </xs:sequence>
</xs:complexType>
```

Table: Specifies a dictionary that maps strings to GridCell objects, as defined in DictionaryWrapperOfStringGridCell.

The key string used on this dictionary is derived from the two GridHeaderItem instances used to index this two dimensional array, and MUST be created as follows:

1. Build an auxiliary dictionary
   - The dictionary MUST be created with one entry for each GridHeaderItem instance.
   - The keys MUST be the GridHeaderItem.DimensionValue values. If DimensionValue is null or empty, GridHeaderItem.DisplayText MUST be used.
   - The value MUST be the dictionary key concatenated with GridHeaderItem.Id.
   - The dictionary keys MUST be sorted alphabetically in descending order.
2. Build the **Table** key based on the previous described dictionary
   - The key to the **Table** dictionary MUST be generated by concatenating the following string pattern for each entry on the auxiliary dictionary:

     [entry key] + ":" + [entry value] + "_"

Example:

Given two GridHeaderItems

- Header 1 (KPI named Internet Sales Amount):
  - Id = 1;
  - DimensionValue = "/PerformancePoint/Lists/Dashboard Content/1_.000";
  - DisplayName = "Internet Sales Amount"
- Header 2 (Target metric):
  - Id = 2;
  - DimensionValue = "Target";
  - DisplayName = "Target"

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The generated Key is: "/PerformancePoint/Lists/Dashboard Content/1_.000:/PerformancePoint/Lists/Dashboard Content/1_.0001_Target:Target2_"

2.2.4.102 GridColor

Namespace: http://www.microsoft.com/performancepoint/scorecards

This class represents the grid color for the GridCell contents.

```
<xs:complexType name="GridColor" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="A" type="xs:unsignedByte" use="required"/>
  <xs:attribute name="R" type="xs:unsignedByte" use="required"/>
  <xs:attribute name="G" type="xs:unsignedByte" use="required"/>
  <xs:attribute name="B" type="xs:unsignedByte" use="required"/>
</xs:complexType>
```

A: The alpha color channel. The value MUST be between 0 and 255. A value of 0 means that the **pixel** does not have any coverage information (transparent). A value of 255 means that the pixel is completely overlapped (opaque).

R: The red color channel. The value MUST be between 0 and 255.

G: The green color channel. The value MUST be between 0 and 255.

B: The blue color channel. The value MUST be between 0 and 255.

2.2.4.103 GridDisplayElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies an element in a **scorecard cell**.

This is a base class for the following complex types:

GridDisplayElementNumber, GridDisplayElementIndicator, GridDisplayElementText, GridDisplayElementHyperLink.

Also see following diagram:

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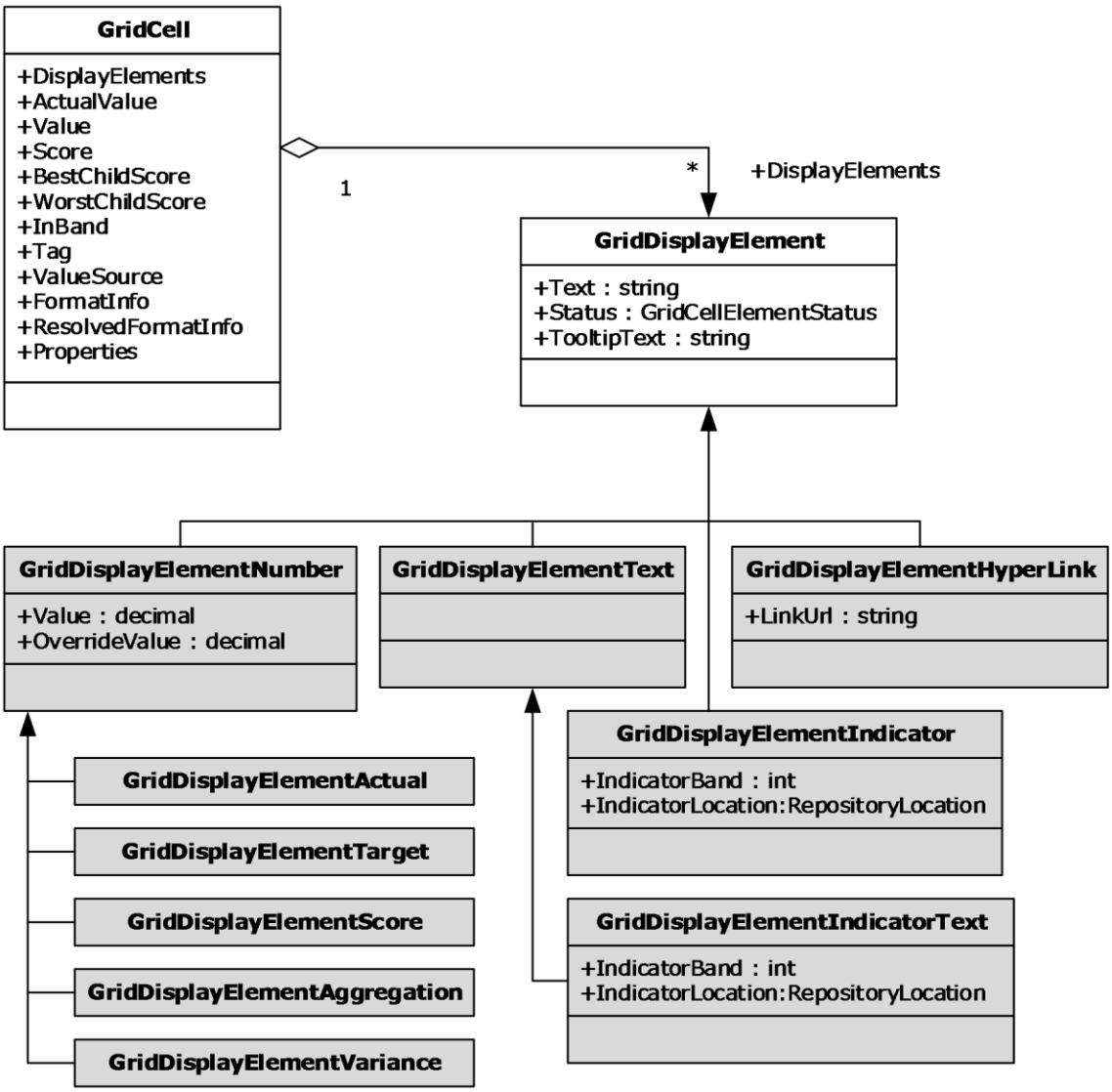


Figure 3: GridDisplayElement

```
<xs:complexType name="GridDisplayElement" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Text" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TooltipText" type="xs:string"/>
  </xs:sequence>
  <xs:attribute name="Status" type="tns:GridCellElmentStatus" use="required"/>
</xs:complexType>
```

Text: Specifies the text of the element in the cell.

TooltipText: Specifies the text that will appear when users hover with the mouse over the element in the cell.

Status: Specifies the status of the element in a scorecard cell. MUST be one of the values defined in GridCellElementStatus

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2.2.4.104 GridDisplayElementActual

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of a **KPI**'s actual value in a **scorecard cell**.

Inherits from the GridDisplayElementNumber.

```
<xs:complexType name="GridDisplayElementActual" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElementNumber"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.105 GridDisplayElementAggregation

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of an aggregated value in a **scorecard cell**.

Inherits from the GridDisplayElementNumber.

```
<xs:complexType name="GridDisplayElementAggregation"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElementNumber"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.106 GridDisplayElementHyperLink

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of a **KPI**'s hyperlink property in a **cell**.

Inherits from the GridDisplayElement.

```
<xs:complexType name="GridDisplayElementHyperLink"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElement">
      <xs:attribute name="LinkUrl" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

LinkUrl: Hyperlink **URL** that will appear in the cell. The attribute MUST be a valid [RFC1738] URL.

2.2.4.107 GridDisplayElementIndicator

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the image of an **indicator** for the GridDisplayElement in a **scorecard cell**.

Inherits from the GridDisplayElement.

```
<xs:complexType name="GridDisplayElementIndicator"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
```


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```
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
      </xs:sequence>
      <xs:attribute name="IndicatorBand" type="xs:int" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

IndicatorLocation: Specifies the RepositoryLocation of the Indicator object for the scorecard cell. MUST NOT be null and MUST reference an Indicator stored in the **server (2)**. See RepositoryLocation.

IndicatorBand: Specifies the one based index of the **IndicatorBand** that is displayed in the scorecard cell. The image defined by the **Indicator** property **NoDataIndicatorBand** is used in the cell if the value is less than one, or if the value is greater than the total number of IndicatorBands.

2.2.4.108 GridDisplayElementIndicatorText

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the descriptive name of an **indicator** for the GridDisplayElement in a **scorecard cell**. The descriptive name of the **IndicatorBand** is the **ToolTip** property of the IndicatorBand, for example: "off target".

```
<xs:complexType name="GridDisplayElementIndicatorText"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElementText">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
      </xs:sequence>
      <xs:attribute name="IndicatorBand" type="xs:int" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

IndicatorLocation: Specifies the RepositoryLocation of the Indicator object for the scorecard cell. MUST NOT be null and MUST reference an Indicator stored in the **server (2)**. See RepositoryLocation.

IndicatorBand: Specifies the one based index of the indicator band that its descriptive name is displayed in the scorecard cell. The descriptive name defined by the **Indicator** property **NoDataIndicatorBand** is used in the cell if the value is less than one, or if the value is greater than the total number of IndicatorBands.

2.2.4.109 GridDisplayElementNumber

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies a numeric GridDisplayElement in a **scorecard cell**. This is a base class for the following complex types GridDisplayElementsActual, GridDsisplayElementTarget, GridDisplayElementScore, GridDisplayElementVariance

```
<xs:complexType name="GridDisplayElementNumber" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElement">
```


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```
      <xs:attribute name="Value" type="xs:decimal" use="required"/>
      <xs:attribute name="OverrideValue" type="xs:decimal" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Value: Specifies the decimal value of the cell element.

OverrideValue: Specifies the decimal value equivalent to the formatted value of the cell.

Example is shown in following table:

Property	Value
Text	55%
Value	0.5498
OverrideValue	55

2.2.4.110 GridDisplayElementScore

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of the **KPI** target's score in a **scorecard cell**. Inherits from the GridDisplayElementNumber.

```
<xs:complexType name="GridDisplayElementScore" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElementNumber"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.111 GridDisplayElementTarget

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of a **KPI**'s target value in a **scorecard cell**. Inherits from the GridDisplayElementNumber.

```
<xs:complexType name="GridDisplayElementTarget" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElementNumber"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.112 GridDisplayElementText

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of a text value in a **scorecard cell**. Inherits from the GridDisplayElement.

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```
<xs:complexType name="GridDisplayElementText" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElement"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.113 GridDisplayElementVariance

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the GridDisplayElement of a **KPI** target's variance value in a **scorecard cell**. Inherits from the GridDisplayElementNumber.

```
<xs:complexType name="GridDisplayElementVariance"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:GridDisplayElementNumber"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.114 GridFontInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

This class represents the font display options for the GridCell contents.

```
<xs:complexType name="GridFontInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="FamilyName" type="xs:string"/>
  <xs:attribute name="SizeInPoints" type="xs:float" use="required"/>
  <xs:attribute name="Bold" type="tns:Trinary" use="required"/>
  <xs:attribute name="Italic" type="tns:Trinary" use="required"/>
  <xs:attribute name="Underline" type="tns:Trinary" use="required"/>
  <xs:attribute name="Strikeout" type="tns:Trinary" use="required"/>
</xs:complexType>
```

FamilyName: The family name of the font. This value MUST be present.

SizeInPoints: The font size in points. This value MUST be present.

Bold: Specifies whether the font is bold. This value MUST be set in the form of Trinary and MUST be present.

Italic: Specifies whether the font is italicized. This value MUST be set in the form of Trinary and MUST be present.

Underline: Specifies whether the font is underlined. This value MUST be set in the form of Trinary and MUST be present.

Strikeout: Specifies whether the font has a strikethrough. This value MUST be set in the form of Trinary and MUST be present.

2.2.4.115 GridFormatInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

This class represents the display format settings for the GridCell contents.

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```
<xs:complexType name="GridFormatInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="FontInfo" type="tns:GridFontInfo"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ForeColor" type="tns:GridColor"/>
    <xs:element minOccurs="0" maxOccurs="1" name="BackColor" type="tns:GridColor"/>
  </xs:sequence>
  <xs:attribute name="TextWrap" type="tns:Trinary" use="required"/>
  <xs:attribute name="VerticalAlignment" type="tns:VerticalAlignments" use="required"/>
  <xs:attribute name="HorizontalAlignment" type="tns:HorizontalAlignments" use="required"/>
</xs:complexType>
```

FontInfo: The font information of the GridCell contents, as defined in GridFontInfo.

ForeColor: The font color of the GridCell contents, as defined in GridColor.

BackColor: The background color of the GridCell contents, as defined in GridColor.

TextWrap: Specifies whether the contents of a GridCell wraps. This value MUST be set in the form of Trinary and MUST be present.

VerticalAlignment: The vertical alignment of the GridCell contents. This value MUST be set in the form of VerticalAlignments and MUST be present.

HorizontalAlignment: The horizontal alignment of the GridCell contents. This value MUST be set in the form of HorizontalAlignments and MUST be present.

2.2.4.116 GridHeaderItem

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **GridHeaderItem** complex type specifies the header that represents a row or a column node in a **scorecard**.

```
<xs:complexType name="GridHeaderItem" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="HeaderFormatInfo"
type="tns:GridFormatInfo"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CellFormatInfo" type="tns:GridFormatInfo"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Children"
type="tns:ArrayOfGridHeaderItem"/>
    <xs:element minOccurs="0" maxOccurs="1" name="SerializeTag"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DimensionMember" type="tns:Member"/>
    <xs:element minOccurs="0" maxOccurs="1" name="OverrideIndicatorLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Banding" type="tns:Banding"/>
    <xs:element minOccurs="0" maxOccurs="1" name="LinkedKpiLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="BpmProperties"
type="tns:ArrayOfBpmProperty"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TargetSettings"
type="tns:GridTargetSettings"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TrendIndicatorLocation"
type="tns:RepositoryLocation"/>
  </xs:sequence>
  <xs:attribute name="Id" type="xs:int" use="required"/>
  <xs:attribute name="Guid" xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"
use="required"/>
  <xs:attribute name="DefinitionGuid" xmlns:s1="http://microsoft.com/wsdl/types/"
type="s1:guid" use="required"/>
  <xs:attribute name="DisplayText" type="xs:string"/>
  <xs:attribute name="DimensionName" type="xs:string"/>
  <xs:attribute name="DimensionValue" type="xs:string"/>
  <xs:attribute name="HeaderType" type="tns:ScorecardNodeTypes" use="required"/>
  <xs:attribute name="GroupId" type="xs:int" use="required"/>
```


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```
    <xs:attribute name="Depth" type="xs:int" use="required"/>
    <xs:attribute name="DescendantSpan" type="xs:int" use="required"/>
    <xs:attribute name="LeafSpan" type="xs:int" use="required"/>
    <xs:attribute name="IsCollapsed" type="xs:boolean" use="required"/>
    <xs:attribute name="IsDynamicCellExpansionEnabled" type="xs:boolean" use="required"/>
    <xs:attribute name="IsDrillEnabled" type="xs:boolean" use="required"/>
    <xs:attribute name="IsDrillDownDisabled" type="xs:boolean" use="required"/>
    <xs:attribute name="IsDrillUpDisabled" type="xs:boolean" use="required"/>
    <xs:attribute name="IsDynamicallyExpandedHeader" type="xs:boolean" use="required"/>
    <xs:attribute name="IsCellHidden" type="xs:boolean" use="required"/>
    <xs:attribute name="IsPathHidden" type="xs:boolean" use="required"/>
    <xs:attribute name="IsHiddenBasedOnFilterStatus" type="xs:boolean" use="required"/>
    <xs:attribute name="NamedSetExpression" type="xs:string"/>
    <xs:attribute name="CustomSetFormula" type="xs:string"/>
    <xs:attribute name="IsNamedSetInError" type="xs:boolean" use="required"/>
    <xs:attribute name="IsNamedSetEmpty" type="xs:boolean" use="required"/>
    <xs:attribute name="NamedSetType" type="tns:ScorecardNamedSetType" use="required"/>
    <xs:attribute name="UseLinkedElementDisplayText" type="xs:boolean" use="required"/>
    <xs:attribute name="Hyperlink" type="xs:string"/>
    <xs:attribute name="ShowHyperlinkInNewWindow" type="xs:boolean" use="required"/>
    <xs:attribute name="IsHierarchyHeader" type="xs:boolean" use="required"/>
    <xs:attribute name="IsColumnHeader" type="xs:boolean" use="required"/>
    <xs:attribute name="AppendFilterInfoToHyperlink" type="xs:boolean" use="required"/>
    <xs:attribute name="Weight" type="xs:decimal" use="required"/>
    <xs:attribute name="KpiTargetName" type="xs:string"/>
    <xs:attribute name="AggregationType" type="tns:HeaderAggregationTypes" use="required"/>
  </xs:complexType>
```

HeaderFormatInfo: This property, as defined in the **GridFormatInfo** complex type (section 2.2.4.115), overrides the format information set for **GridHeaderItem,** under either the **GridViewDefinition** (section 2.2.4.122) or **GridViewData** (section 2.2.4.121) complex types, for **GridHeaderItem**.

CellFormatInfo: This property, as defined in **GridFormatInfo**, overrides the format information set under **GridHeaderItem.HeaderFormatInfo** for **GridHeaderItem**.

Children: Specifies an array of **GridHeaderItem**, as defined in the **ArrayOfGridHeaderItem** complex type (section 2.2.4.37).

SerializeTag: A general purpose tag for **GridHeaderItem** defined as a generic **object**.

DimensionMember: Dimension member (section 2.2.4.90) associated with this header, as defined in the **Member** complex type (section 2.2.4.134).

OverrideIndicatorLocation: The location of the override **Indicator** complex type (section 2.2.4.125) for **rollups** as defined in the **RepositoryLocation** complex type (section 2.2.4.161). If null, the default rollup indicator location, as mentioned under **GridViewDefinition** or **GridViewData** will be used.

Banding: **Banding** settings, as defined in the **Banding** complex type (section 2.2.4.60). When null, the **BandingType.Type** is **Normalized**.

LinkedKpiLocation: Location of the linked **Kpi** complex type (section 2.2.4.128), as defined in **RepositoryLocation**.

BpmProperties: Collection of element properties, as defined in the **ArrayOfBpmProperty** complex type (section 2.2.4.23).

TargetSettings: **Target** column settings, as defined in **GridTargetSettings** complex type (section 2.2.4.119).

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TrendIndicatorLocation: If the header type is aggregate and **TrendIndicatorLocation** points to a valid location as defined in **RepositoryLocation**, this header item represents a trend column. The **TrendIndicatorLocation** MUST point to the location of the indicator used to show the trend.

Id: Unique integer identifier for this header.

Guid: Global unique identifier for **GridHeaderItem**.

DefinitionGuid: Global unique identifier that links a data header back to the definition header.

DisplayText: Display text for **GridHeaderItem**.

DimensionName: Dimension name is set based on the header type. The following table specifies the allowable **dimension** names for different scorecard header types.

Header type	Dimension name
Member	Member **Dimension** name.
Kpi	Scorecard__
KpiActual	Scorecard_Measures__
KpiTarget	Scorecard_Measures__
Aggregate	Scorecard_Aggregates__
ScorecardDetails	Scorecard_Details__
DocumentLinks	Scorecard_DocumentLinks__
NamedSet	null
None	null

DimensionValue: Dimension value is set based on the header type. The following table specifies the allowable dimension values for different scorecard header types.

Header type	Dimension value
Member	Member unique name.
Kpi	**RepositoryLocation** of the **Kpi**.
KpiActual	This value equals the **BpmPropertyText.Text** value.
KpiTarget	This value equals the **BpmPropertyText.Text** value.
Aggregate	**AggregateType** as specified by the **AggregateTypeEnum** simple type (section 2.2.5.1).
ScorecardDetails	Only the values "Description", "Name", or "Person Responsible" are supported.
DocumentLinks	**GUID**.
NamedSet	null
None	null

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HeaderType: The type of **GridHeaderItem** as defined in the **ScorecardNodeTypes** simple type (section 2.2.5.44).

GroupId: An integer identifier to identify all **members (2)** in a set. The **GroupId** is positive if the header type is **Member** or **NamedSet** and has a negative value when no hierarchy (for example, a flat **list (1)** of members). Root headers are an exception to this rule because their **GroupId** value is zero.

Depth: Depth of the **GridHeaderItem** in the tree. It starts with value zero for the root level node and keeps incrementing moving towards the leaves.

DescendantSpan: Maximum number of header levels for all **descendant** leaves.

LeafSpan: Number of leaves under **GridHeaderItem**.

IsCollapsed: This attribute MUST be **TRUE** if the header node is collapsed; otherwise, this attribute is **FALSE**.

IsDynamicCellExpansionEnabled: This attribute MUST be **TRUE** if the dynamic expansion (**named set** expansion) setting is enabled for this header node; otherwise, this attribute is **FALSE**. This setting is valid only for **Dimension** members.

IsDrillEnabled: This attribute MUST be **TRUE** if the drill operations are enabled for **GridHeaderItem**; otherwise, this attribute is **FALSE**. This setting is valid only for **Dimension** members.

IsDrillDownDisabled: This attribute MUST be **TRUE** if the **drilldown** operation is disabled for **GridHeaderItem**; otherwise, this attribute is **FALSE**. This gets set if it is the leaf node in the **Hierarchy** complex type (section 2.2.4.124).

IsDrillUpDisabled: This attribute MUST be **TRUE** if the drill up operation is disabled for this header; otherwise, the attribute is **FALSE**. This attribute gets set if it is the top most node in the **Hierarchy**.

IsDynamicallyExpandedHeader: This attribute MUST be **TRUE** if **GridHeaderItem** was created through dynamic expansion (named set expansion); otherwise, this attribute is **FALSE**. The header item can be dynamically expanded only if the **IsDynamicCellExpansionEnabled** attribute and the corresponding **ConfiguredView** (section 2.2.4.77) setting (**AllowDynamicRowMemberExpansion** for rows and **AllowDynamicColumnMemberExpansion** for columns) are set to **TRUE**.

IsCellHidden: This attribute MUST be **TRUE** if the header **cell** is hidden; otherwise, this attribute is **FALSE**.

IsPathHidden: This attribute MUST be **TRUE** if the header path is hidden; otherwise, this attribute is **FALSE**.

IsHiddenBasedOnFilterStatus: This attribute MUST be **TRUE** if this **GridHeaderItem** is hidden by **Filter** (section 2.2.4.98) status; otherwise, this attribute is **FALSE**.

NamedSetExpression: When the **NamedSetType** is **NamedSet**, this MUST conform to a valid **MDX** set expression. When the type is **CustomFormula**, the **CustomSetFormula** and **NamedSetExpression** properties are equal. For the **TimeFormula** type, this MUST be an empty string.

CustomSetFormula: When the **NamedSetType** is **TimeFormula**, this MUST be a valid **time intelligence** formula. When the type is **CustomFormula**, the **NamedSetExpression** properties are equal.

IsNamedSetInError: This attribute MUST be **TRUE** if the named set expression is in an error state; otherwise, this attribute is **FALSE**.

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IsNamedSetEmpty: This attribute MUST be **TRUE** if the named set expression returned an empty set; otherwise, this attribute is **FALSE**.

NamedSetType: It identifies whether it is a named set header, custom formula, time formula, or none, as defined in the **ScorecardNamedSetType** simple type (section 2.2.5.43).

UseLinkedElementDisplayText: This attribute MUST be **TRUE** if the linked **Kpi** name is used as the display text for **GridHeaderItem**; otherwise, this attribute is **FALSE**.

Hyperlink: Obsolete.

ShowHyperlinkInNewWindow: Obsolete.

IsHierarchyHeader: This attribute MUST be **TRUE** if the header is part of a **Hierarchy** collection, or **FALSE** if the header is part of a linear list (1).

IsColumnHeader: This attribute MUST be **TRUE** if this is a column header, or **FALSE** if this is a row header.

AppendFilterInfoToHyperlink: This attribute MUST be **TRUE** if the filter information MUST be appended to the hyperlink; otherwise, this attribute is **FALSE**.

Weight: Display value weight that gets used for **Kpi** headers.

KpiTargetName: Kpi actual or **Target** (section 2.2.4.170) display name for **GridHeaderItem**.

AggregationType: Specifies the aggregation types, as defined in the **HeaderAggregationTypes** simple type (section 2.2.5.26).

2.2.4.117 GridIndicatorSettings

Namespace: http://www.microsoft.com/performancepoint/scorecards

Defines the settings for the Indicator in the Target field.

```
<xs:complexType name="GridIndicatorSettings" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Position" type="tns:IndicatorPosition"/>
  </xs:sequence>
  <xs:attribute name="ShowImage" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowText" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowForeColor" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowBackColor" type="xs:boolean" use="required"/>
</xs:complexType>
```

Position: Represents the position of the Indicator as defined in IndicatorPosition.

ShowImage: This attribute MUST be **true** if the Indicator's image (see IndicatorBand.**ImageData**) displays; otherwise, **false**.

ShowText: This attribute MUST be **true** if the Indicator's text (see IndicatorBand.**ToolTip**) displays; otherwise, **false**.

ShowForeColor: This attribute MUST be **true** if the Indicator's foreground color (see IndicatorBand.**Color**) is applied; otherwise, **false**.

ShowBackColor: This attribute MUST be **true** if the Indicator's background color (see IndicatorBand.**BackColor**) is applied; otherwise, **false**.

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2.2.4.118 GridScoreSettings

Namespace: http://www.microsoft.com/performancepoint/scorecards

Defines the settings for the **score** in the Target field.

```
<xs:complexType name="GridScoreSettings" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="ShowValue" type="xs:boolean" use="required"/>
  <xs:attribute name="ScoreType" type="tns:ScoreTypes" use="required"/>
  <xs:attribute name="RollupType" type="tns:RollupTypes" use="required"/>
  <xs:attribute name="Position" type="tns:DataValuePosition" use="required"/>
</xs:complexType>
```

ShowValue: This attribute MUST be **true** if the score is shown for Target column; otherwise, **false**.

ScoreType: Represents the score type as defined in ScoreTypes.

RollupType: Represents the score **rollup** type as defined in RollupTypes.

Position: Represents the score position as defined in DataValuePosition.

2.2.4.119 GridTargetSettings

Namespace: http://www.microsoft.com/performancepoint/scorecards

Defines the display settings for the Target column.

```
<xs:complexType name="GridTargetSettings" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="VarianceSettings"
type="tns:GridVarianceSettings"/>
    <xs:element minOccurs="1" maxOccurs="1" name="FilterEmptyRows" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Position" type="tns:DataValuePosition"/>
    <xs:element minOccurs="1" maxOccurs="1" name="PositionActual"
type="tns:DataValuePosition"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ScoreSettings"
type="tns:GridScoreSettings"/>
    <xs:element minOccurs="0" maxOccurs="1" name="IndicatorSettings"
type="tns:GridIndicatorSettings"/>
  </xs:sequence>
  <xs:attribute name="ShowValue" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowActualAsTarget" type="xs:boolean" use="required"/>
  <xs:attribute name="IgnoreScoreFilter" type="xs:boolean" use="required"/>
</xs:complexType>
```

VarianceSettings: Represents the **variance** settings as defined in GridVarianceSettings.

FilterEmptyRows: This attribute MUST be **true** if the empty rows are filtered; otherwise, **false**.

Position: Represents the position of the Target value in the **cell** as defined in DataValuePosition.

PositionActual: Represents the position of the associated actual value in the cell as defined in DataValuePosition.

ScoreSettings: Represents the Target cell's **score** settings as defined in GridScoreSettings.

IndicatorSettings: Represents the Target cell's Indicator settings as defined in GridIndicatorSettings.

ShowValue: This attribute MUST be **true** if the Target value is shown; otherwise, **false**.

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ShowActualAsTarget: This attribute MUST be **true** if the actual value is shown in place of the Target value; otherwise, **false**.

IgnoreScoreFilter: This attribute MUST be **true** if the Target is considered when filtering rows using the score filter; otherwise, **false**.

2.2.4.120 GridVarianceSettings

Namespace: http://www.microsoft.com/performancepoint/scorecards

Defines the settings for the **variance** in the Target column.

```
<xs:complexType name="GridVarianceSettings" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="NumDecimalPlaces" type="xs:int" use="required"/>
  <xs:attribute name="VarianceType" type="tns:VarianceType" use="required"/>
  <xs:attribute name="DisplayType" type="tns:VarianceDisplayType" use="required"/>
  <xs:attribute name="ShowValue" type="xs:boolean" use="required"/>
  <xs:attribute name="Position" type="tns:DataValuePosition" use="required"/>
</xs:complexType>
```

NumDecimalPlaces: Represents the number of decimal places to show after the decimal.

VarianceType: Represents the **variance** calculation type as defined in VarianceType.

DisplayType: .Represents the **variance** display type as defined in VarianceDisplayType.

ShowValue: This attribute MUST be **true** if the **variance** is displayed in the Target column; otherwise **false**.

Position: Represents the position of the **variance** value as defined in DataValuePosition.

2.2.4.121 GridViewData

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **GridViewData** complex type specifies the data structure that represents the **scorecard** view.

The following diagram illustrates the scorecard view representation:

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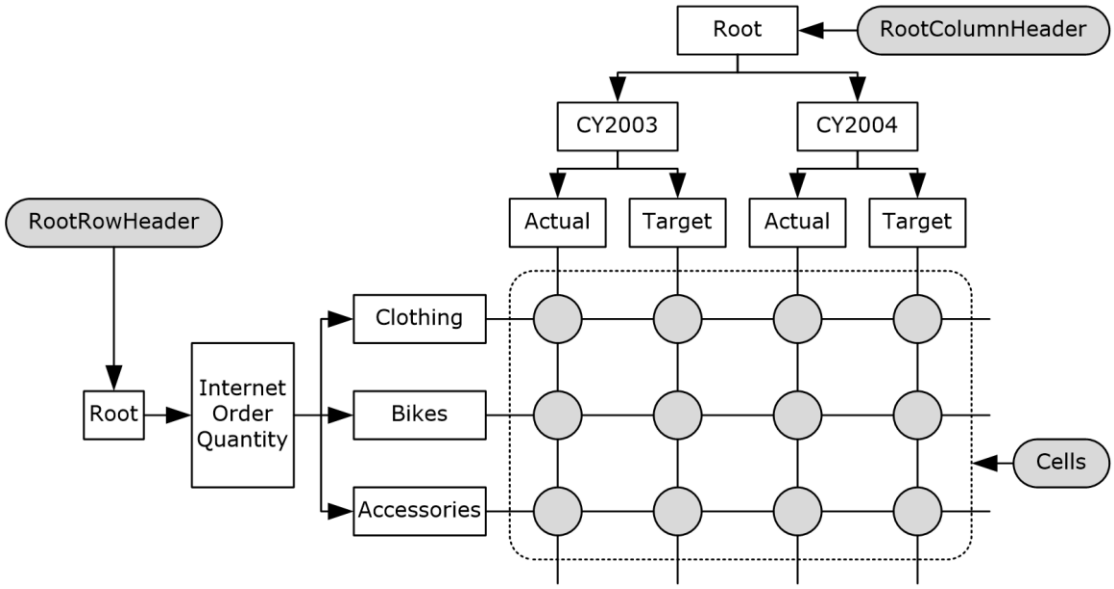


Figure 4: GridViewData

The **GridViewData** is mainly composed of two tree data structures representing all the row and column headers and a two dimensional array representing every possible interception between elements of those two trees.

The row and column header trees MUST be accessed by the properties **RootRowHeader** and **RootColumnHeader** respectively. The two dimensional array MUST be accessed by the **Cells** property.

```
<xs:complexType name="GridViewData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Cells" type="tns:GridCellSet"/>
    <xs:element minOccurs="0" maxOccurs="1" name="RootRowHeader" type="tns:GridHeaderItem"/>
    <xs:element minOccurs="0" maxOccurs="1" name="RootColumnHeader"
type="tns:GridHeaderItem"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DefaultRollupIndicatorLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="PreQueryTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="1" name="PostQueryTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="1" name="PreRenderTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="1" name="PerUserTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="1" name="PageFilters" type="tns:ArrayOfMember"/>
  </xs:sequence>
  <xs:attribute name="ScorecardViewId" xmlns:s1="http://microsoft.com/wsdl/types/"
type="s1:guid" use="required"/>
  <xs:attribute name="Cached" type="xs:boolean" use="required"/>
  <xs:attribute name="CacheExpiration" type="xs:dateTime" use="required"/>
  <xs:attribute name="DefaultRollupIndicatorId" xmlns:s1="http://microsoft.com/wsdl/types/"
type="s1:guid" use="required"/>
  <xs:attribute name="EmptyCell" type="xs:string"/>
  <xs:attribute name="InvalidCell" type="xs:string"/>
  <xs:attribute name="TIFormula" type="xs:string"/>
  <xs:attribute name="TICurrentDateTime" type="xs:string"/>
</xs:complexType>
```


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Cells: This is a two dimensional array as defined in the complex type **GridCellSet** (section 2.2.4.101). The array is indexed by two **GridHeaderItem** complex type objects (section 2.2.4.116). One representing a row header and one representing a column header. This element MUST contain one **GridCell** complex type object (section 2.2.4.100) for each possible intersection of a row header and a leaf column header.

RootRowHeader: Specifies the root element for the row header tree, as defined in **GridHeaderItem**.

RootColumnHeader: Specifies the root element for the column header tree, as defined in **GridHeaderItem**.

ScorecardLocation: Points to the scorecard object for which the **GridViewData** was created, as defined in the RepositoryLocation complex type (section 2.2.4.161).

DefaultRollupIndicatorLocation: Points to the default **indicator** for **rollup** calculated cells, as defined in **RepositoryLocation**.

PreQueryTransforms: Specifies a set of **transform** operations that are applied to the **GridViewData** just before getting data from the **data sources (1)** (see **GridViewTransformReference** section 2.2.4.123).

PostQueryTransforms: Specifies a set of transform operations that are applied to the **GridViewData** after getting data from the data sources(1) (see **GridViewTransformReference**).

PreRenderTransforms: Specifies a set of transform operations that are applied to the **GridViewData** prior to rendering the scorecard (see **GridviewTransformReference**). While all the other types of transform operations are applied once when the **GridViewData** is generated, the pre-render and per-user transforms are applied every time the scorecard is rendered, even if the **GridViewData** object is not new.

PerUserTransforms: This element is deprecated and MUST NOT be used.

PageFilters: Specifies a collection of **members** used to **slice** the scorecard values, as defined in **ArrayOfMember** (section 2.2.4.45).

ScorecardViewId: **GUID** that identifies the **ConfiguredView** complex type (section 2.2.4.77) instance associated with the scorecard pointed to by **ScorecardLocation**.

Cached: This attribute MUST be **FALSE** if the **GridViewData** is new, or **TRUE** if it was retrieved from a caching mechanism.

CacheExpiration: Specifies when the **GridViewData** object becomes invalid.

DefaultRollupIndicatorId: GUID used as the identifier for the **indicator** that is used by default for rollup calculated cells.

EmptyCell: Specifies the default text used as the display test for empty cells.

InvalidCell: Specifies the default text used as the display test for invalid cells.

TIFormula: Specifies the value passed from an external **time intelligence filter** connected to the scorecard TI Formula endpoint (see **Scorecard.EndPoints** section 2.2.4.162). If set, it represents the **Simple Time Period Specification formula** that is used by the scorecard query engine to filter **KpiMeasure** complex types (section 2.2.4.129) uniformly independent of data source. If it is null or empty, the default time intelligence filter of the KPI is applied, if one is defined.

TICurrentDateTime: Specifies the value passed from an external time intelligence filter connected to the scorecard Current Date Time endpoint (see **Scorecard.EndPoints**). If set, it represents the Simple Time Period Specification (STPS) **dateTime** that is used by the scorecard query engine to evaluate **KpiMeasures** that contain a time intelligence filter. If not set, the current date time of the

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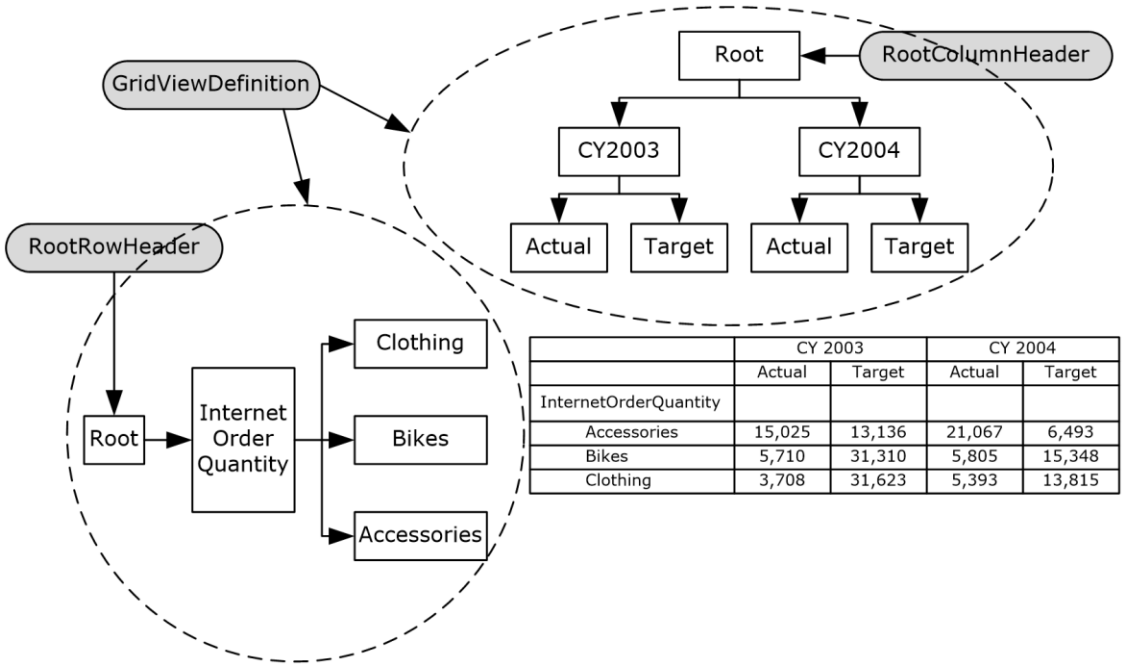
server (2) is used by the scorecard query engine to evaluate **KpiMeasures** if a time intelligence filter is defined.

2.2.4.122 GridViewDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **GridViewDefinition** complex type specifies the definition of a grid-based **scorecard** view.

The following picture illustrates the role of a **GridViewDefinition** in a scorecard.



	CY 2003		CY 2004	
	Actual	Target	Actual	Target
InternetOrderQuantity				
Accessories	15,025	13,136	21,067	6,493
Bikes	5,710	31,310	5,805	15,348
Clothing	3,708	31,623	5,393	13,815

Figure 5: GridViewDefinition

The **GridViewDefinition** contains the tree data structures representing all the row and column headers. The row and column header trees MUST be accessed by the properties **RootRowHeader** and **RootColumnHeader** respectively.

```
<xs:complexType name="GridViewDefinition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="CornerCellFormatInfo"
type="tns:GridFormatInfo"/>
    <xs:element minOccurs="0" maxOccurs="1" name="RootRowHeader" type="tns:GridHeaderItem"/>
    <xs:element minOccurs="0" maxOccurs="1" name="RootColumnHeader"
type="tns:GridHeaderItem"/>
    <xs:element minOccurs="1" maxOccurs="1" name="DefaultRollupIndicatorId"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DefaultRollupIndicatorLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="PreQueryTransforms"
type="tns:GridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="PostQueryTransforms"
type="tns:GridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="PreRenderTransforms"
type="tns:GridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="PerUserTransforms"
type="tns:GridViewTransformReference"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CellBorderColor" type="tns:GridColor"/>
  </xs:sequence>
```


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```
    <xs:attribute name="EmptyCell" type="xs:string"/>
    <xs:attribute name="InvalidCell" type="xs:string"/>
    <xs:attribute name="ShowGridLines" type="xs:boolean" use="required"/>
    <xs:attribute name="ShowHiddenHeaders" type="xs:boolean" use="required"/>
    <xs:attribute name="ShowMetricHeaders" type="xs:boolean" use="required"/>
    <xs:attribute name="ShowPlusMinus" type="xs:boolean" use="required"/>
  </xs:complexType>
```

CornerCellFormatInfo: Specifies the format applied to the top left **cell** of the scorecard as defined in the **GridFormatInfo** complex type (section 2.2.4.115).

RootRowHeader: Specifies the root element of the row header tree, as defined in the **GridHeaderItem** complex type (section 2.2.4.116).

RootColumnHeader: Specifies the root element of the column header tree, as defined in **GridHeaderItem**.

DefaultRollupIndicatorId: This attribute is deprecated from the protocol and MUST NOT be used.

DefaultRollupIndicatorLocation: Points to the default **indicator** for **rollup** calculated cells, as defined in the **RepositoryLocation** complex type (section 2.2.4.161).

PreQueryTransforms: This attribute is deprecated from the protocol and MUST NOT be used.

PostQueryTransforms: This attribute is deprecated from the protocol and MUST NOT be used

PreRenderTransforms: This attribute is deprecated from the protocol and MUST NOT be used.

PerUserTransforms: This attribute is deprecated from the protocol and MUST NOT be used.

CellBorderColor: Specifies the border color applied to scorecard cells, as defined in the **GridColor** complex type (section 2.2.4.102).

EmptyCell: Specifies the string that needs to be displayed in empty scorecard cells. The cells are left empty when this property is **null** or empty.

InvalidCell: Specifies the string that needs to be displayed in invalid scorecard cells. The default value for this property is "Error".

ShowGridLines: This attribute MUST be **TRUE** if the scorecard grid lines are displayed; otherwise, this attribute is **FALSE**.

ShowHiddenHeaders: This attribute MUST be **TRUE** if the hidden headers (see **GridHeaderItem.IsHidden**) are displayed; otherwise, this attribute is **FALSE**.

ShowMetricHeaders: This attribute MUST be **TRUE** if the metric headers are displayed; otherwise, this attribute is **FALSE**.

ShowPlusMinus: This attribute MUST be **TRUE** if the expand/collapse signs are displayed; otherwise, this attribute is **FALSE**.

2.2.4.123 GridViewTransformReference

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **GridViewTransformReference** complex type specifies one **transform** operation to be applied to a **GridViewData** complex type (section 2.2.4.121) instance.

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```
<xs:complexType name="GridViewTransformReference"
xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Parameters" type="tns:PropertyBag"/>
  </xs:sequence>
  <xs:attribute name="Id" type="xs:string"/>
</xs:complexType>
```

Parameters: Represents a general property bag, as defined in the **PropertyBag** complex type (section 2.2.4.158). The **Parameters** property MAY be null or empty. If the transformation associated with the **GridViewTransformReference** complex type (section 2.2.4.123) requires any specific information, the **Parameters** property MUST contain that information.

Id: Specifies the transformation associated with the **GridViewTransformReference**. It MUST NOT be null or empty. It MUST be one of the transformations registered on the **server (2)**.<16>

2.2.4.124 Hierarchy

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Hierarchy** complex type specifies a **hierarchy**. It extends the complex type **NameInfo** (section 2.2.4.149).

```
<xs:complexType name="Hierarchy" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:NameInfo">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Levels" type="tns:ArrayOfLevel"/>
      </xs:sequence>
      <xs:attribute name="DefaultMemberName" type="xs:string"/>
      <xs:attribute name="DimensionUniqueName" type="xs:string"/>
      <xs:attribute name="DisplayFolder" type="xs:string"/>
      <xs:attribute name="HierarchyOrigin" type="tns:HierarchyOrigin" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Levels: An array of **Level** complex type objects (section 2.2.4.131) in the hierarchy.

DefaultMemberName: The unique name of the hierarchy's **default member**.

DimensionUniqueName: The parent **dimension** (see **Dimension** complex type section 2.2.4.90) name of the hierarchy.

DisplayFolder: The **display folder** of the hierarchy.

HierarchyOrigin: The hierarchy structure, as defined by the **HierarchyOrigin** simple type (section 2.2.5.27).

2.2.4.125 Indicator

Namespace: http://www.microsoft.com/performancepoint/scorecards

A set of visualizations that represent how the actual value of a **KPI** compares against its target value.

```
<xs:complexType name="Indicator" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
```


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```
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="NoDataIndicatorBand"
type="tns:IndicatorBand"/>
        <xs:element minOccurs="0" maxOccurs="1" name="IndicatorBands"
type="tns:ArrayOfIndicatorBand"/>
      </xs:sequence>
      <xs:attribute name="IndicatorType" type="tns:IndicatorType" use="required"/>
      <xs:attribute name="IsBuiltIn" type="xs:boolean" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

NoDataIndicatorBand: The IndicatorBand element that is used when the KPI contains no data. It MUST exist.

IndicatorBands: An array of IndicatorBand elements that represent different ranges of values for a KPI.

- The array MUST exist.
- If **IndicatorType** is set to "Standard", there MUST be at least two and no more than ten indicator bands.
- If **IndicatorType** is set to "Centered", there MUST be an even number of indicator bands that counts at least four and no more than 20.

IndicatorType: The type of **indicator** as specified by IndicatorType.

IsBuiltIn: A Boolean that specifies whether the **indicator** was shipped with the product or not. A value of **true** means the **indicator** was shipped with the product. A value of **false** means that it is a custom **indicator** created by a user.

2.2.4.126 IndicatorBand

Namespace: http://www.microsoft.com/performancepoint/scorecards

This is a visualization representing one state of an **indicator**.

```
<xs:complexType name="IndicatorBand" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ImageData" type="xs:string"/>
  </xs:sequence>
  <xs:attribute name="Color" type="xs:string"/>
  <xs:attribute name="BackColor" type="xs:string"/>
  <xs:attribute name="ToolTip" type="xs:string"/>
</xs:complexType>
```

ImageData: A base-64 encoded string converted from a stream of the **Portable Network Graphics (PNG)** image file representing this indicator state.

- The PNG file stream that **ImageData** originates from MUST NOT exceed 512,000 bytes in length.
- Both the height and the width of the PNG image MUST NOT exceed 256 **pixels**.

Color: A string converted from a 24-bit color that represents this **indicator** state when it is shown as text. The string MUST be formatted as "#RRGGBB".

- **RR** – A two-digit hexadecimal value that indicates the amount of red light in the color. For example, #FF0000 defines the color red.

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- **GG** – A two-digit hexadecimal value that indicates the amount of green light in the color. For example, #00FF00 defines the color green.
- **BB** - A two-digit hexadecimal value that indicates the amount of blue light in the color. For example, #0000FF defines the color blue.

BackColor: A string converted from a 24-bit color that represents this indicator state in visualizations where images or text cannot be displayed, such as in **strategy maps**. The string MUST be formatted as "#RRGGBB".

- **RR** – A two-digit hexadecimal value that indicates the amount of red light in the color. For example, #FF0000 defines the color red.
- **GG** – A two-digit hexadecimal value that indicates the amount of green light in the color. For example, #00FF00 defines the color green.
- **BB** - A two-digit hexadecimal value that indicates the amount of blue light in the color. For example, #0000FF defines the color blue.

ToolTip: A string containing the **ToolTip** for this **IndicatorBand**. The length MUST NOT exceed 1000 characters.

2.2.4.127 Item

Namespace: http://www.microsoft.com/performancepoint/scorecards

Represents a key-value pair in a **SerializableDictionary** (section 2.2.4.164).

```
<xs:complexType name="Item" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Key" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Value" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Key: Specifies the string key used for addressing the **Value** element content.

Value: Specifies the element associated with the **Key**. It MUST be of complex type **MemberSetFormula** (section 2.2.4.145), **MemberList** (section 2.2.4.135), or **Member** (section 2.2.4.134).

The **Key** and **Value** elements MUST conform to the following:

- For each **Key**, there MUST be an associated **Value**.
- Each **Key** MUST be unique and MUST NOT be **null**.

Each **Value** MUST NOT be **null**.

2.2.4.128 Kpi

Namespace: http://www.microsoft.com/performancepoint/scorecards

A **key performance indicator (KPI)** is contained in a **scorecard**.

```
<xs:complexType name="Kpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
      <xs:sequence>
```


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```
        <xs:element minOccurs="0" maxOccurs="1" name="Actuals" type="tns:ArrayOfKpiMeasure"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Targets" type="tns:ArrayOfTarget"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Actuals: An array of **KpiMeasure** (see section 2.2.4.129) elements. The array MUST exist and MUST contain at least one **KpiMeasure**.

Targets: An array of **Target** (see section 2.2.4.170) elements.

2.2.4.129 KpiMeasure

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **KpiMeasure** complex type is contained in a **KPI**.

```
<xs:complexType name="KpiMeasure" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:SecondClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="OwnerKpiLocation"
type="tns:RepositoryLocation"/>
        <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
        <xs:element minOccurs="0" maxOccurs="1" name="DefaultDimensionSettings"
type="tns:ArrayOfDefaultDimensionSetting"/>
        <xs:element minOccurs="0" maxOccurs="1" name="OverrideFormatProperties"
type="tns:KpiNumberFormatProperties"/>
        <xs:element minOccurs="0" maxOccurs="1" name="CalcFormulaInfo"
type="tns:CalculatedFormulaInfo"/>
      </xs:sequence>
      <xs:attribute name="AggregateBy" type="tns:AggregateTypeEnum" use="required"/>
      <xs:attribute name="DisableScorecardFilters" type="xs:boolean" use="required"/>
      <xs:attribute name="ModelCurrent" type="xs:decimal" use="required"/>
      <xs:attribute name="Pattern" type="tns:KpiPattern" use="required"/>
      <xs:attribute name="CurrentFormula" type="xs:string"/>
      <xs:attribute name="IsCustomCurrentFormula" type="xs:boolean" use="required"/>
      <xs:attribute name="OdbcQuery" type="xs:string"/>
      <xs:attribute name="OverrideHoverText" type="xs:string"/>
      <xs:attribute name="TimeFilterFormula" type="xs:string"/>
      <xs:attribute name="ValueSource" type="tns:ValueSources" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

OwnerKpiLocation: The location of the parent **Kpi** complex type (section 2.2.4.128), as specified by the **RepositoryLocation** complex type (see section 2.2.4.161). Upon successful **Kpi** creation, the **server (2)** MUST set this value to a **RepositoryLocation**, whose **ItemUrl** field matches the location of the parent **Kpi**.

DataSourceLocation: The location of the **DataSource** complex type (section 2.2.4.85), as specified by **RepositoryLocation**. For **CalcFormulaInfo** to apply to the measure query, **DataSourceLocation.ItemUrl** MUST be empty.

DefaultDimensionSettings: An array of **DefaultDimensionSetting** complex types (section 2.2.4.87) which represent the **dimension slices** to apply to the measure query.

OverrideFormatProperties: This allows for custom formatting of measure values, as specified by **KpiNumberFormatProperties** (section 2.2.4.130).

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CalcFormulaInfo: A calculated **formula** to apply to the measure query, as specified by **CalculatedFormulaInfo** (section 2.2.4.74). For this formula to apply, **DataSourceLocation.ItemUrl** MUST be empty.

AggregateBy: The aggregation method to apply to the measure query, as specified by **AggregateTypeEnum** (section 2.2.5.1).

DisableScorecardFilters: A value of **TRUE** indicates that **scorecard filters** are disabled for the measure query; a value of **FALSE** indicates that scorecard filters are enabled for the measure query.

ModelCurrent: The fixed value of the **KpiMeasure**.

- **DataSourceLocation**.**ItemUrl** MUST equal "/%%fixedvalues%%" for **ModelCurrent** to be used.

Pattern: The pattern this **KpiMeasure** follows, as specified by the **KpiPattern** simple type (section 2.2.5.32). **Banding** and scoring behave differently with different patterns.

CurrentFormula: The **MDX** formula or **tuple** used to retrieve the current value.

- If **IsCustomCurrentFormula** is set to **TRUE**, the value MUST have one or more non-**whitespace** characters.
- If **IsCustomCurrentFormula** is set to **FALSE**, the value is ignored.
- MUST be a valid MDX formula or tuple if **DataSource.SourceName** (see section 2.2.4.85) equals "ADOMD.NET".
- The length MUST NOT exceed 4,000 characters.

IsCustomCurrentFormula: A value of **TRUE** indicates that **CurrentFormula** is used to compute the current value; a value of **FALSE** indicates that **CurrentFormula** is ignored.

- **DataSource.SourceName** MUST equal "ADOMD.NET" for **IsCustomCurrentFormula** to be used.

OdbcQuery: This attribute is deprecated from the protocol and MUST NOT be used.

OverrideHoverText: A descriptive string meant for the user. The length MUST NOT exceed 256 characters.

TimeFilterFormula: The **time intelligence** formula to apply to the measure query. The length MUST NOT exceed 4,000 characters.

ValueSource: The **rollup** method to apply to the source data, as specified by the **ValueSources** simple type (section 2.2.5.51).

2.2.4.130 KpiNumberFormatProperties

Namespace: http://www.microsoft.com/performancepoint/scorecards

Used for custom formatting of **KPI measure** values.

```
<xs:complexType name="KpiNumberFormatProperties" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="Multiplier" type="xs:decimal" use="required"/>
  <xs:attribute name="FormatType" type="tns:FormatType" use="required"/>
  <xs:attribute name="CurrencySymbol" type="xs:string"/>
  <xs:attribute name="DecimalPlaces" type="xs:int" use="required"/>
  <xs:attribute name="NegativeSymbol" type="tns:FormatNegativeSymbol" use="required"/>
  <xs:attribute name="ShowZeroAs" type="xs:string"/>
  <xs:attribute name="UseThousandsSeparator" type="xs:boolean" use="required"/>
  <xs:attribute name="AdditionalTextLeft" type="xs:string"/>
  <xs:attribute name="AdditionalTextRight" type="xs:string"/>
```


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```
</xs:complexType>
```

Multiplier: The multiplier value used to convert the original value to a different scale.

FormatType: The formatting pattern used for number formatting, as specified by **FormatType** (see section 2.2.5.23).

CurrencySymbol: The currency symbol used for number formatting.

DecimalPlaces: The number of decimal places used for number formatting. The value MUST NOT be less than 0 and MUST NOT be greater than 28.

NegativeSymbol: The representation of negative values used for number formatting, as specified by FormatNegativeSymbol (see section 2.2.5.22).

ShowZeroAs: The string used, if its length is greater than 0 characters, to express a value of 0; otherwise, 0 will be formatted as a number, as specified in **FormatType** (section 2.2.5.23). The length MUST NOT exceed 8 characters.

UseThousandsSeparator: A value of **true** indicates that a thousands separator is enabled for number formatting; a value of **false** indicates it is disabled.

AdditionalTextLeft: The string added to the left of the formatted number. The length MUST NOT exceed 8 characters.

AdditionalTextRight: The string added to the right of the formatted number. The length MUST NOT exceed 8 characters.

2.2.4.131 Level

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a **level**. It extends the complex type **NameInfo** (section 2.2.4.149).

```
<xs:complexType name="Level" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:NameInfo">
      <xs:attribute name="DimensionUniqueName" type="xs:string"/>
      <xs:attribute name="HierarchyUniqueName" type="xs:string"/>
      <xs:attribute name="IsAllLevel" type="xs:boolean" use="required"/>
      <xs:attribute name="LevelNumber" type="xs:int" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

DimensionUniqueName: The unique name of the **dimension** for the level.

HierarchyUniqueName: The unique name of the **hierarchy** for the level.

IsAllLevel: This attribute MUST be **true** if this Level is the level that unites all the members of the dimension or hierarchy into one element at the top of the dimension or hierarchy; otherwise, **false**.

LevelNumber: The numeric representation of the level depth in the dimension or hierarchy that the level represents. The value MUST NOT be less than 0. Zero means this level is the root level in the dimension or hierarchy. If set to 1, this member is at the first level of the dimension or hierarchy, 2 indicates that the member is at the second level of the dimension or hierarchy, and so on.

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2.2.4.132 MDXParameterDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **MDXParameterDefinition** is a complex type that specifies a custom **MDX** used to retrieve data.

```
<xs:complexType name="MDXParameterDefinition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Expression" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Expression: A string representing an MDX.

2.2.4.133 Measure

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Measure** complex type specifies a **measure**. It extends the complex type **NameInfo** (section 2.2.4.149).

```
<xs:complexType name="Measure" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:NameInfo">
      <xs:attribute name="AggregatorValue" type="xs:int" use="required"/>
      <xs:attribute name="MeasureGroup" type="xs:string"/>
      <xs:attribute name="DisplayFolder" type="xs:string"/>
      <xs:attribute name="HierarchyName" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

AggregatorValue: The numeric value representing the aggregation type for this measure as defined in the MEASURE_AGGREGATOR column of the MDSCHEMA_MEASURES rowset in [MS-SSAS] section 3.1.4.2.2.1.3.9.1.

MeasureGroup: The name of the **measure group** which contains this measure.

DisplayFolder: The name of the **display folder** for this measure.

HierarchyName: The unique name of the hierarchy of this measure.

2.2.4.134 Member

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Member** complex type represents an **OLAP member** in a **Dimension** complex type (section 2.2.4.90).

```
<xs:complexType name="Member" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="MemberOperation"
type="tns:MemberOperation"/>
  </xs:sequence>
  <xs:attribute name="Caption" type="xs:string"/>
  <xs:attribute name="UniqueName" type="xs:string"/>
  <xs:attribute name="HierarchyPath" type="xs:string"/>
  <xs:attribute name="LevelName" type="xs:string"/>
  <xs:attribute name="DimensionName" type="xs:string"/>
  <xs:attribute name="LevelDepth" type="xs:int" use="required"/>
```


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```
    <xs:attribute name="ChildCount" type="xs:long" use="required"/>
    <xs:attribute name="IsChildCountReal" type="xs:boolean" use="required"/>
    <xs:attribute name="IsAllLevel" type="xs:boolean" use="required"/>
    <xs:attribute name="DimensionUniqueName" type="xs:string"/>
    <xs:attribute name="MemberType" type="tns:MemberType" use="required"/>
  </xs:complexType>
```

MemberOperation: The **MemberOperation** complex type (section 2.2.4.136) for this member (2).

Caption: The display name for this member (2).

UniqueName: The unique name for this member (2).

HierarchyPath: The hierarchy tree path of this member (2).

LevelName: The unique name of the level for this member (2).

DimensionName: The unique name of the **dimension** that this member (2) belongs to.

LevelDepth: The numeric value of the level depth in the **Hierarchy** (section 2.2.4.124) that this member belongs to. Zero indicates that this member is at the root level in the hierarchy. If set to 1, this member is at the first level of the hierarchy, 2 indicates that the member is at the second level of the hierarchy, and so on.

ChildCount: The number of **child** members (2) of this member (2).

IsChildCountReal: This attribute MUST be **FALSE** if the **ChildCount** property is an estimate, or **TRUE** if it is the actual number. This property is used to monitor whether the **ChildCount** property is up-to-date. This property is set by the client.

IsAllLevel: This attribute MUST be **TRUE** if the level that this member (2) belongs to is the level that unites all the members (2) of the hierarchy into one element at the top of the hierarchy; otherwise, this attribute is **FALSE**.

DimensionUniqueName: The unique name of the **Dimension** for this member (2).

MemberType: The **MemberType** simple type (section 2.2.5.39) for this member (2).

2.2.4.135 MemberList

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **MemberList** complex type specifies the **members (2)** of an **OLAP hierarchy**. This type extends **MemberSet** complex type (section 2.2.4.144), and can be used with any axis type.

```
<xs:complexType name="MemberList" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberSet">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="memberList" type="tns:ArrayOfString"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

memberList: An array of strings representing the members of an OLAP hierarchy. This MUST conform to the schema of complex type **ArrayOfString** complex type (section 2.2.4.54). Each string in the list represents the **UniqueName** string property of an OLAP **Member** complex type (section 2.2.4.134).

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2.2.4.136 MemberOperation

Namespace: http://www.microsoft.com/performancepoint/scorecards

Represents the basic member operations that can be performed on an **OLAP dimension** member.

MemberOperation abstract type is the base class for MemberOperationAllDescendents, MemberOperationChildren, MemberOperationDescendents, MemberOperationDrillUp, MemberOperationHide and MemberOperationLeafDescendents.

```
<xs:complexType name="MemberOperation" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

2.2.4.137 MemberOperationAllDescendants

Namespace: http://www.microsoft.com/performancepoint/scorecards

A **MemberOperation** complex type (section 2.2.4.136) that represents all **descendants** of a referred member in the dimension hierarchy. This type extends **MemberOperation**.

```
<xs:complexType name="MemberOperationAllDescendants"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.138 MemberOperationChildren

Namespace: http://www.microsoft.com/performancepoint/scorecards

A MemberOperation that represents all **child** members of a referred member in a dimension hierarchy. This type extends MemberOperation.

```
<xs:complexType name="MemberOperationChildren" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.139 MemberOperationDescendants

Namespace: http://www.microsoft.com/performancepoint/scorecards

A MemberOperation that represents all **descendants** of a referred member at a specified level in the hierarchy. This type extends MemberOperation.

```
<xs:complexType name="MemberOperationDescendants"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberOperation">
      <xs:attribute name="LevelUniqueName" type="xs:string"/>
      <xs:attribute name="LevelDisplayName" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```


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LevelUniqueName: The unique name of a level in the dimension hierarchy.

LevelDisplayName: The display name of a level (see section 2.2.4.131) in a dimension (see section 2.2.4.90) hierarchy (see section 2.2.4.124).

2.2.4.140 MemberOperationDrillUp

Namespace: http://www.microsoft.com/performancepoint/scorecards

A MemberOperation that represents the parent of a referred member. This type extends MemberOperation.

```
<xs:complexType name="MemberOperationDrillUp" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.141 MemberOperationHide

Namespace: http://www.microsoft.com/performancepoint/scorecards

A MemberOperation that hides a referred member. This type extends MemberOperation.

```
<xs:complexType name="MemberOperationHide" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.142 MemberOperationLeafDescendants

Namespace: http://www.microsoft.com/performancepoint/scorecards

A MemberOperation that represents all descendants of a referred member that are also leaf members in the dimension hierarchy. This type extends MemberOperation.

```
<xs:complexType name="MemberOperationLeafDescendants"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberOperation"/>
  </xs:complexContent>
</xs:complexType>
```

2.2.4.143 MemberParameterDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **MemberParameterDefinition** is a complex type that represents a group of **members (2)** used to retrieve data.

```
<xs:complexType name="MemberParameterDefinition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Dimension" type="tns:Dimension"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Members" type="tns:ArrayOfMember"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DefaultMembers" type="tns:ArrayOfMember"/>
  </xs:sequence>
```


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```
</xs:complexType>
```

Dimension: A **Dimension** (see section 2.2.4.90) representing the **dimension** for the group of associated (or related) members (2).

Members: The group of members (2) used to identify the data to be retrieved.

DefaultMembers: An **ArrayOfMember** (see section 2.2.4.45) object representing the list (1) of default members (2) for a specified dimension.

2.2.4.144 MemberSet

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the properties of an **OLAP member hierarchy**.

```
<xs:complexType name="MemberSet" abstract="true" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="FilterEmpty" type="xs:boolean" use="required"/>
  <xs:attribute name="HierarchyType" type="tns:HierarchyType" use="required"/>
  <xs:attribute name="Hierarchize" type="xs:boolean" use="required"/>
  <xs:attribute name="Distinct" type="xs:boolean" use="required"/>
  <xs:attribute name="HierarchyName" type="xs:string"/>
</xs:complexType>
```

FilterEmpty: This attribute MUST be present and MUST be **true** if the FILTER function MUST be used in the **MDX** query; otherwise, **false**.

HierarchyType: This attribute MUST be present. It specifies the type of the hierarchy that the members belong to. It MUST conform to the schema of **HierarchyType** (section 2.2.5.28) simple type.

Hierarchize: This attribute MUST be present and MUST be **true** if the HIERARCHIZE function MUST be used in the MDX query; otherwise, **false**.

Distinct: This attribute MUST be present and MUST be **true** if the DISTINCT function MUST be used in the MDX query; otherwise, **false**.

HierarchyName: This attribute MUST NOT be **null**. It specifies the unique name of the hierarchy.

2.2.4.145 MemberSetFormula

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies a collection of operations on the **members (2)** of an **OLAP hierarchy**. This type extends MemberSet and can be used with any axis type.

```
<xs:complexType name="MemberSetFormula" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:MemberSet">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Operations"
type="tns:ArrayOfSetOperation"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```


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Operations: This element MUST NOT be **null**. It contains a collection of elements of complex type **SetOperation** (section 2.2.4.165) that specify the operations on the members of the hierarchy.

2.2.4.146 MemberTransform

Namespace: http://www.microsoft.com/performancepoint/scorecards

Represents a **transform**, such as **drilldown**, applied to a member, hierarchy group or KPI.

```
<xs:complexType name="MemberTransform" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="GroupId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CellPath" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Type" type="tns:MemberTransformType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Operation"
type="tns:MemberTransformOperation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CustomData" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

GroupId: The string representing a hierarchy group identifier.

CellPath: The location of the member inside the hierarchy group.

Type: The MemberTransformType of the **MemberTransform**.

Operation: The MemberTransformOperation of the **MemberTransform**.

CustomData: Specifies additional data related to the **MemberTransform**. This element MUST be present. This element MUST NOT be empty. The content of **CustomData** is dependent on the Operation of the **MemberTransform** as designated in the following table.

Operation	Content
Replace	CustomData MUST be an instance of ArrayOfMember.
DrillUp, DrillDown, or Expand	CustomData MUST be an instance of DataSource.

2.2.4.147 NamedSet

Namespace: http://www.microsoft.com/performancepoint/scorecards

An **OLAP named set**.

```
<xs:complexType name="NamedSet" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Dimensions" type="tns:ArrayOfString"/>
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string"/>
  <xs:attribute name="Expression" type="xs:string"/>
  <xs:attribute name="DisplayFolder" type="xs:string"/>
</xs:complexType>
```

Dimensions: The list (1) of dimensions (section 2.2.4.90) used in the named set, using the Dimension.UniqueName property. It MUST conform to the schema of the **ArrayOfString** (section 2.2.4.54) complex type.

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Name: The display name for the named set.

Expression: The **MDX** for this named set.

DisplayFolder: Where the named set appears in a hierarchical view of named sets.

2.2.4.148 NamedSetParameterDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **NamedSetParameterDefinition** is a complex type representing a set of **members (2)** used to retrieve data.

```
<xs:complexType name="NamedSetParameterDefinition"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Name" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Expression" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Name: A display name for the **named set**.

Expression: The **MDX** representing a set of members (2) used to retrieve data.

2.2.4.149 NameInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **NameInfo** complex type specifies the names and the description of a **cube**, **dimension**, **hierarchy**, **level**, or **measure**. It is the base type for the complex types **Cube** (section 2.2.4.78), **Dimension** (section 2.2.4.90), **Hierarchy** (section 2.2.4.124), **Level** (section 2.2.4.131), and **Measure** (section 2.2.4.133).

```
<xs:complexType name="NameInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="DisplayName" type="xs:string"/>
  <xs:attribute name="UniqueName" type="xs:string"/>
  <xs:attribute name="Description" type="xs:string"/>
</xs:complexType>
```

DisplayName: The display name of the cube, dimension, hierarchy, level, or measure.

UniqueName: The unique name of the cube, dimension, hierarchy, level, or measure.

Description: The description of the cube, dimension, hierarchy, level, or measure.

2.2.4.150 NumericFormat

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **NumericFormat** is a complex type that represents the numeric format setting for an **Analysis Services measure** numeric value within an analytic grid report.

```
<xs:complexType name="NumericFormat" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="MemberName" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="FormatType" type="tns:FormatType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CurrencySymbol" type="xs:string"/>
```


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```
    <xs:element minOccurs="1" maxOccurs="1" name="DecimalPlaces" type="xs:int"/>
    <xs:element minOccurs="1" maxOccurs="1" name="NegativeSymbol"
type="tns:FormatNegativeSymbol"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ShowZeroAs" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="UseThousandsSeparator" type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AdditionalTextLeft" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AdditionalTextRight" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

MemberName: The Analysis Services measure name to which this numeric formatting is being applied.

FormatType: The formatting pattern used for number formatting, as specified by **FormatType** (see section 2.2.5.23).

CurrencySymbol: The currency symbol for number formatting.

DecimalPlaces: The number of trailing decimal places used for number formatting. The value MUST NOT be less than 0 and MUST NOT be greater than 30.

NegativeSymbol: The representation of negative values used for number formatting.

ShowZeroAs: The string used, if its length is greater than 0 characters, to express the value of 0; otherwise formatted as a number.

UseThousandsSeparator: A value of **true** indicates that a thousands separator is enabled for number formatting; a value of **false** indicates it is disabled.

AdditionalTextLeft: The text added to the left of the formatted number.

AdditionalTextRight: The text added to the right of the formatted number.

2.2.4.151 NumericFormatsHashtable

Namespace: http://www.microsoft.com/performancepoint/scorecards

An array of **NumericFormat** objects.

```
<xs:complexType name="NumericFormatsHashtable" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="NumericFormat"
type="tns:NumericFormat"/>
  </xs:sequence>
</xs:complexType>
```

NumericFormat: This element MUST NOT be null and MUST conform to the schema of the **NumericFormat** (see section 2.2.4.150) complex type.

2.2.4.152 OLAPQueryData

Namespace: http://performancepoint.microsoft.com/OLAPQueryData

Represents an analytic query.

```
<xs:complexType name="OLAPQueryData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Parameters" type="tns:ArrayOfParameter"/>
```


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```
    <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="MDX" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Parameters: An **ArrayOfParameters** collection (see section 2.2.4.54) containing all the user-defined parameters for the current query as well as their default values. It MUST NOT be null. If there are no user-defined parameters, it MUST be empty.

DataSourceLocation: A **RepositoryLocation** object (see section 2.2.4.163) that specifies the location on the **server (2)** of the data source object associated with this query. It MUST NOT be null.

MDX: The **MDX** query used to generate data for the analytic report. It MUST NOT be null or empty. Any parameters from the **Parameters** collection used in this query MUST be denoted using left and right angle brackets. For example, a parameter named *ParameterName* MUST be included as *<<ParameterName>>*.

2.2.4.153 OLAPReportView

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **OLAPReportView** complex type contains all the state information for an analytic report.

```
<xs:complexType name="OLAPReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="QueryData" type="qdata:OLAPQueryData"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ReportViewData" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParentReportViewLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ShowInformationBar" type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="QueryState" type="query:QueryState"/>
  </xs:sequence>
  <xs:attribute name="MeasureGroupName" type="xs:string"/>
  <xs:attribute name="Caption" type="xs:string"/>
  <xs:attribute name="Description" type="xs:string"/>
  <xs:attribute name="FormatDimensionUniqueName" type="xs:string"/>
</xs:complexType>
```

QueryData: An **OLAPQueryData** complex type object (section 2.2.4.152) that specifies data source information and user-defined parameters. It MUST NOT be null. Either this object or the **QueryState** complex type object (section 2.2.4.159) MUST be populated to represent the query for the report.

ReportViewData: Specifies view data for the current report. It MUST be XML that can **deserialize** into an object that inherits from the **AnalyticBaseReportViewData** complex type (section 2.2.4.14). It MUST NOT be null or empty. See also the complex types **AnalyticChartReportView** (section 2.2.4.16) and **AnalyticGridReportView** (section 2.2.4.17), which both inherit from **AnalyticBaseReportViewData**.

ParentReportViewLocation: A **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of the parent report on the **server (2)**. It MUST NOT be null. It SHOULD be empty to indicate that there is no parent report. It MUST contain the location of a report on the server (2) if the method **SaveTemporaryAnalyticReport** is being called (section 3.1.4.65).

ShowInformationBar: Specifies whether to display an information bar along the top of the **report view**.

QueryState: A **QueryState** object that specifies the current data query. It MUST NOT be null. Either this object or the **QueryData** object MUST be populated to represent the query for the report. If this

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object is used, the **IsEnabled** property MUST be set to **TRUE**. If both **QueryData** and **QueryState** are populated and **QueryState.IsEnabled** is **TRUE**, the **QueryState** object will be used to run the query. If **QueryState.IsEnabled** is **FALSE**, the **QueryData** object will be used to run the query.

MeasureGroupName: Specifies the measure group that was selected when the report was last modified.

Caption: Specifies the text that is displayed in the caption for the report.

Description: This attribute is deprecated from the protocol and MUST NOT be used.

FormatDimensionUniqueName: Specifies a text name that uniquely identifies the **dimension** to use to obtain data formatting information for this report.

2.2.4.154 Parameter

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies a logical element of an analytic query whose value can be changed independently of the analytic query.

```
<xs:complexType name="Parameter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="DefaultValue" type="xs:string"/>
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string"/>
</xs:complexType>
```

DefaultValue: The string value that the parameter will use by default.

Name: A string that uniquely identifies the parameter within its parent, ArrayOfParameter (see section 2.2.4.49). It MUST NOT contain a left-angle bracket (<) or a right-angle bracket (>).

2.2.4.155 ParameterDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

This class represents the non-visual portion of the metadata to describe a parameter. This class carries the state necessary to generate a parameter list representing possible connections that can be originated from a first-class element.

```
<xs:complexType name="ParameterDefinition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ParameterUniqueName" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DisplayValues">
      <xs:complexType>
        <xs:sequence>
          <xs:any minOccurs="0" maxOccurs="unbounded"
namespace="http://www.w3.org/2001/XMLSchema" processContents="lax"/>
          <xs:any minOccurs="1" namespace="urn:schemas-microsoft-com:xml-diffgram-v1"
processContents="lax"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" maxOccurs="1" name="CustomDefinition" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParameterProviderId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DisplayName" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="EmitterType"
type="tns:BeginPointEmitterType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="KeyColumn" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParentKeyColumn" type="xs:string"/>
```


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```
      <xs:element minOccurs="0" maxOccurs="1" name="DisplayColumn" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="IsDefaultColumn" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="DefaultPostFormula" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
```

ParameterUniqueName: The unique name of the parameter.

DisplayValues: The **DataTable** (as described in [DataTable]) containing **DataColumn** definitions that define the parameter outputs of a data source. A **DataColumn** that is a parameter output MUST contain a **ShowColumn** extended property and its value MUST be **true** using the format specified in [MS-DSDIFFGRAM], section 2.3.2. A column definition that is a parameter output not to be used for configuring conditional visibility MUST contain a **NotShowColumnForCondVisibility** extended property and its value MUST be **true** using the format specified in [MS-DSDIFFGRAM], section 2.3.2.

CustomDefinition: A serialized object or string value. If the value of **ParameterProviderId** is in the **ParameterProviderId** table, the value of **CustomDefinition** MUST be the corresponding chart value or serialized object. If the value for **ParameterProviderId** is not in the chart, **CustomDefinition** can be any string.

ParameterProviderId: The identifier of the data provider for the value or serialized object in **CustomDefinition**.

ParameterProviderId	CustomDefinition
MDXParameterDataProvider	A MdxParameterDefinition object.
MemberParameterDataProvider	A MemberParameterDefinition object.
NamedSetParameterDataProvider	A NamedSetParameterDefinition object.
ParameterScorecardCellProvider	"BeginPoint_ScorecardCell"
ParameterScorecardColumnMemberProvider	"BeginPoint_ScorecardColumnMember"
ParameterScorecardKpiProvider	"BeginPoint_Kpi"
ParameterScorecardRowMemberProvider	"BeginPoint_ScorecardRowMember"
TimeIntelligencePostFormulaProvider	A TimeIntelligencePostFormulaDefinition object.
TimeIntelligenceProvider	A TimeIntelligenceDefinition object.

DisplayName: The display name of the parameter.

EmitterType: A BeginPointEmitterType object that specifies the type of information the parameter emits.

KeyColumn: The column name containing the key identifier for the parameter values.

ParentKeyColumn: The column name containing the parent key column.

DisplayColumn: The column name containing the display name of the parameter values.

IsDefaultColumn: The column name containing the Boolean value that indicates the row is a default selection of the parameter values.

DefaultPostFormula: The default post **formula** for this parameter as defined in [MSFT-ConnectionFormula].

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2.2.4.156 ParameterMapping

Namespace: http://www.microsoft.com/performancepoint/scorecards

Provides the mapping information between a **ParameterDefinition** (section 2.2.4.155) and a **DashboardItem** (section 2.2.4.83).

```
<xs:complexType name="ParameterMapping" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ConditionalData">
      <xs:complexType>
        <xs:sequence>
          <xs:any minOccurs="0" maxOccurs="unbounded"
namespace="http://www.w3.org/2001/XMLSchema" processContents="lax"/>
          <xs:any minOccurs="1" namespace="urn:schemas-microsoft-com:xml-diffgram-v1"
processContents="lax"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="EndPointUniqueName" type="xs:string"/>
  <xs:attribute name="Id" xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"
use="required"/>
  <xs:attribute name="SourceColumnName" type="xs:string"/>
  <xs:attribute name="DashboardItemId" xmlns:s1="http://microsoft.com/wsdl/types/"
type="s1:guid" use="required"/>
  <xs:attribute name="ParameterUniqueName" type="xs:string"/>
  <xs:attribute name="PostFormula" type="xs:string"/>
  <xs:attribute name="IsConditionalDataEnabled" type="xs:boolean" use="required"/>
  <xs:attribute name="IsDefaultVisibility" type="xs:boolean" use="required"/>
</xs:complexType>
```

ConditionalData: The **DataTable** (as described in [DataTable]) containing visibility values that indicate a connected **Web Part** is visible. The **DataTable** MUST contain a **DataColumn** with name equal to the **KeyColumn** defined in **ParameterDefinition** (section 2.2.4.155) that contains key values. The **DataTable** MUST contain a **DataColumn** with name equal to the **DisplayColumn** defined in **ParameterDefinition** (section 2.2.4.155) that contains display values; otherwise, the first column in the **DataTable** will be used for display values.

EndPointUniqueName: Specifies the unique name of the endpoint for the **DashboardItem** (section 2.2.4.83).

Id: A **GUID** that marks the mapping relationship.

SourceColumnName: A column name that appears in the return of the query that pulls selected values for the parameter associated with the element identified by **DashboardItemId**.

DashboardItemId: Identifies the **DashboardItem** that is the source of the parameter.

ParameterUniqueName: This attribute MUST equal the **ParameterUniqueName** defined in **ParameterDefinition** (section 2.2.4.155).

PostFormula: A **PostFormula** is a transformation expression that is applied to the selected values passed from a filter or scorecard to consuming report or scorecard as defined in [MSFT-ConnectionFormula].

IsConditionalDataEnabled: This attribute MUST be set to **true** if **ConditionalData** is not null; otherwise, **false**.

IsDefaultVisibility: This attribute MUST be set to **true** if the Web Part is shown as a default, when the provider does not enable any consumers via configured visible values; otherwise, **false**.

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2.2.4.157 PasReportViewData

Namespace: http://www.microsoft.com/performancepoint/scorecards

Contains all the state information for a ProClarity Analytics Server report.

```
<xs:complexType name="PasReportViewData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="ServerUrl" type="xs:string"/>
  <xs:attribute xmlns:s1="http://microsoft.com/wsdl/types/" name="PageId" type="s1:guid"
use="required"/>
  <xs:attribute name="PagePath" type="xs:string"/>
  <xs:attribute name="ConfigOptions" type="xs:string"/>
</xs:complexType>
```

ServerUrl: The **URL** identifies the ProClarity Analytics Server of the report view.

PageId: The ProClarity Analytics Server **report view GUID** identifier.

PagePath: The ProClarity Analytics Server report URL path that is relative to the **server (2)** URL. The absolute URL is the combination of the **ServerUrl** and **PagePath** parts.

ConfigOptions: A list (1) of ProClarity Analytics Server report view configuration options that is included as the "uiConfig" URL parameter query string.

2.2.4.158 PropertyBag

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **PropertyBag** complex type MUST contain a pairing of keys and values.

```
<xs:complexType name="PropertyBag" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Keys" type="tns:ArrayOfString"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Values" type="tns:ArrayOfChoice1"/>
  </xs:sequence>
</xs:complexType>
```

Keys: Key names of type string.

Values: A property chosen from a list (1) of various data types; see ArrayOfChoice1.

2.2.4.159 QueryState

Namespace: http://schemas.microsoft.com/performancepoint/2007/03/query

An alternate representation of a **MDX** query that includes the member selections of each axis.

```
<xs:complexType name="QueryState" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Axes" type="tns:ArrayOfAxis"/>
    <xs:element minOccurs="1" maxOccurs="1" name="IsEnabled" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="UnknownFilterParameter" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ShowDatasourceFormatting"
type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
  </xs:sequence>
</xs:complexType>
```


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Axes: An **ArrayOfAxis** (see section 2.2.4.25) collection that contains the member selections for each axis. It MUST NOT be null.

IsEnabled: Specifies whether the **QueryState** object represents the query for the report. A value of **true** indicates that the **QueryState** object will be used. A value of **false** indicates that the **QueryState** object will not be used.

UnknownFilterParameter: Specifies whether or not an aggregation of multiple members are selected on one of the filter axes. A value of **true** indicates that multiple members are selected on a filter axis. A value of **false** indicates that they are not.

ShowDatasourceFormatting: Specifies whether or not formatting information from the data source is used to determine how to display data. A value of **true** indicates that formatting information from the data source is to be used. A value of **false** indicates that it is not.

DataSourceLocation: A **RepositoryLocation** object (see section 2.2.4.163) that specifies the location on the **server (2)** of the data source object associated with this query state. It MUST NOT be null.

2.2.4.160 ReportView

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ReportView** complex type controls the visual display of data in a **dashboard** and can be coordinated with other **report views** using filters. Report views include analytic grids and charts, **PivotTable** and **PivotChart** reports, Excel spreadsheets [MS-XLSX], SQL Server Reporting Services reports, **strategy maps**, trend charts, web pages, and custom reports.

```
<xs:complexType name="ReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation"
type="tns:RepositoryLocation"/>
        <xs:element minOccurs="0" maxOccurs="1" name="CustomData" type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="EndPoints" type="tns:ArrayOfEndPoint"/>
        <xs:element minOccurs="0" maxOccurs="1" name="BeginPoints"
type="tns:ArrayOfParameterDefinition"/>
      </xs:sequence>
      <xs:attribute name="TypeName" type="xs:string"/>
      <xs:attribute name="RenderClientSide" type="xs:boolean" use="required"/>
      <xs:attribute name="ConfiguredViewId" xmlns:s1="http://microsoft.com/wsdl/types/"
type="s1:guid" use="required"/>
      <xs:attribute name="SubTypeId" type="xs:string"/>
      <xs:attribute name="RendererClassName" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ScorecardLocation: This property is only used for strategy map **ReportViews**. It stores the **RepositoryLocation** complex type (section 2.2.4.161) of the **Scorecard** associated with the strategy map.

CustomData: Specifies custom data for the report view. This element MUST be present. The content of **CustomData** is determined by the **TypeName** of the report view as designated in the following table.

TypeName	Content
AnalyticChart	**CustomData** MUST contain an **OlapReportView** complex type object (section 2.2.4.153) serialized as an **XML document** and XML encoded. The value of the

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TypeName	Content
	OlapReportView ReportViewData property MUST be an **AnalyticChartReportView** complex type (section 2.2.4.16) serialized as an XML document.
DecompositionTree	**CustomData** MUST be ignored.
ExcelService	**CustomData** MUST contain an **ExcelServicesData** complex type object (section 2.2.4.97) serialized as an XML document and XML encoded.
Implementation-specific custom string	**CustomData** MAY be used depending on the implementation of the third-party report view. The specific content required is defined by the implementer of the custom report view.
KpiDetails	**CustomData** MUST be ignored.
OLAPDrillThrough	**CustomData** MUST be ignored.
OLAPGrid	**CustomData** MUST contain an **OlapReportView** object serialized as an XML document and XML encoded. The value of the **OlapReportView ReportViewData** property MUST be an **AnalyticGridReportView** complex type (section 2.2.4.17) serialized as an XML document.
PasPage	**CustomData** MUST contain a **PasReportViewData** complex type (section 2.2.4.157) serialized as an XML document and XML encoded.
PivotChart	**CustomData** MUST be ignored.
PivotTable	**CustomData** MUST be ignored.
Spreadsheet	**CustomData** MUST be ignored.
StrategyMap	**CustomData** MUST contain a **StrategyMapViewData** complex type (section 2.2.4.168) serialized as an XML document and XML encoded.
SqlReport	**CustomData** MUST contain a **SqlReportViewData** complex type (section 2.2.4.166) serialized as an XML document and XML encoded.
TrendAnalysisChart	**CustomData** MUST be ignored.
Url	**CustomData** MUST NOT be null and MUST be a valid [RFC1738] **URL** or a string constant: "about:blank".

EndPoints: Specifies the available connection destinations to filter and control the display of this report view. This element MUST be present. If the **SubTypeId** is not custom and there are no connection destinations, two **Endpoint** complex type (section 2.2.4.95) items will be present for row and column with a category of None. This element MUST conform to the schema of the **ArrayOfEndPoint** complex type (section 2.2.4.33).

BeginPoints: Specifies the available connection sources to filter and set conditions for the display of other reports and scorecards. This element MUST be present. This element MUST conform to the schema of the **ArrayOfParameterDefinition** complex type (section 2.2.4.50).

TypeName: Specifies the name of the report view type. This attribute MUST be present. The content of **TypeName** is determined by the type of the report view as designated in the following table. If the report view is a custom report view, **TypeName** MUST NOT be empty. It MUST NOT be longer than 60 characters. It MUST NOT contain the characters ', ", or \. It MUST NOT be the same as one of the predefined report view types already listed in the following table.

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Type	Content
URL	**TypeName** MUST be "Url".
SQL Report	**TypeName** MUST be "SqlReport".
Spreadsheet	**TypeName** MUST be "Spreadsheet".
PivotTable	**TypeName** MUST be "PivotTable".
PivotChart	**TypeName** MUST be "PivotChart".
Strategy Map	**TypeName** MUST be "StrategyMap".
Trend Analysis Chart	**TypeName** MUST be "TrendAnalysisChart".
Analytic Grid	**TypeName** MUST be "OLAPGrid".
Analytic Chart	**TypeName** MUST be "AnalyticChart".
Decomposition Tree Report	**TypeName** MUST be "DecompositionTree".
Analytic Drill Through report	**TypeName** MUST be "OLAPDrillThrough".
Excel Services Workbook	**TypeName** MUST be "ExcelServices".
PAS Page	**TypeName** MUST be "PasPage".
KPI Detail Page	**TypeName** MUST be "KpiDetails".

RenderClientSide: If **TRUE**, the report view is rendered on the client. If **FALSE**, the report view is rendered on the **server (2)**.

ConfiguredViewId: Specifies the identity of the **ConfiguredView** complex type (section 2.2.4.77) for this **ReportView**. This element MUST be present.

SubTypeId: Specifies the identifier for the type of the report view. This attribute MUST be present. The content of **SubTypeId** is determined by the type of the report view, as designated in the following table. If the report view is a custom report view, **SubTypeId** MUST NOT be empty. It MUST NOT be longer than 60 characters. It MUST NOT contain the characters ', ", or \. It MUST NOT be the same as one of the predefined report view type's **SubTypeId** already listed in the following table.

Type	Content
URL	**SubTypeId** MUST be "Url".
SQL Report	**SubTypeId** MUST be "SqlReport".
Spreadsheet	**SubTypeId** MUST be "Spreadsheet".
PivotTable	**SubTypeId** MUST be "PivotTable".
PivotChart	**SubTypeId** MUST be "PivotChart".
Strategy Map	**SubTypeId** MUST be "StrategyMap".
Trend Analysis Chart	**SubTypeId** MUST be "TrendAnalysisChart".
Analytic Grid	**SubTypeId** MUST be "OLAPGrid".
Analytic Chart	**SubTypeId** MUST be "AnalyticChart".

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Type	Content
Decomposition Tree Report	**SubTypeId** MUST be "DecompositionTree".
Analytic Drill Through report	**SubTypeId** MUST be "OLAPDrillThrough".
Excel Services Workbook	**SubTypeId** MUST be "ExcelServices".
PAS Page	**SubTypeId** MUST be "PasPage".
KPI Detail Page	**SubTypeId** MUST be "KpiDetails".

RendererClassName: Specifies the fully qualified name for the assembly class that provides the rendering for the report view. This attribute MUST be present. If **SubTypeId** is not one of the predefined report view types listed in the table for **SubTypeId**, **RendererClassName** MUST be the assembly-qualified name of the custom type; otherwise, the value MUST be empty.

2.2.4.161 RepositoryLocation

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **RepositoryLocation** complex type specifies the location of a **FirstClassElement** (section 2.2.4.99) stored on the **server (2)**.

```
<xs:complexType name="RepositoryLocation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="ItemUrl" type="xs:string" use="required"/>
  <xs:attribute default="None" name="ItemType" type="tns:FirstClassObjectType"
use="optional"/>
  <xs:attribute default="00000000-0000-0000-0000-000000000000" name="ItemGuid"
use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-
fA-F]{12}"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute default="00000000-0000-0000-0000-000000000000" name="SpSiteCollectionGuid"
use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-
fA-F]{12}"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute default="00000000-0000-0000-0000-000000000000" name="SpSiteGuid"
use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-
fA-F]{12}"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute default="00000000-0000-0000-0000-000000000000" name="SpListGuid"
use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-
fA-F]{12}"/>
      </xs:restriction>
    </xs:simpleType>
```


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```
  </xs:attribute>
</xs:complexType>
```

ItemUrl: A **server-relative URL** to a **FirstClassElement** (section 2.2.4.99) stored by the server (2).

- If the **FirstClassElement** was created by **SaveTemporaryAnalyticReport** (section 3.1.4.65), this value MUST be empty.
- When creating a new **FirstClassElement**, this value MUST be empty.
- In all other cases, this value MUST contain a valid **URL**.

ItemType: The type of **FirstClassElement** as specified by **FirstClassObjectType** (section 2.2.5.20).

ItemGuid: The **GUID** assigned to the **FirstClassElement** by the server (2).

SpSiteCollectionGuid: The GUID of the **site collection** to which the **FirstClassElement** belongs. This value is assigned by the server (2).

SpSiteGuid: The GUID of the **site (2)** to which the **FirstClassElement** belongs. This value is assigned by the server (2).

SpListGuid: The GUID of the **list (2)** to which the **FirstClassElement** belongs. This value is assigned by the server (2).

2.2.4.162 Scorecard

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type represents a **scorecard**.

```
<xs:complexType name="Scorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:FirstClassElement">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="ConfiguredViews"
type="tns:ArrayOfConfiguredView"/>
        <xs:element minOccurs="0" maxOccurs="1" name="EndPoints" type="tns:ArrayOfEndPoint"/>
        <xs:element minOccurs="0" maxOccurs="1" name="BeginPoints"
type="tns:ArrayOfParameterDefinition"/>
      </xs:sequence>
      <xs:attribute name="RendererClassName" type="xs:string"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ConfiguredViews: Settings for display, behavior, and other purposes, as specified by **ArrayOfConfiguredView** (section 2.2.4.27). MUST be present and MUST contain at least one **ConfiguredView** (section 2.2.4.77).

EndPoints: Specifies the available connection destinations to filter and control the display of this scorecard. This element MUST be present. This element MUST conform to the schema of the **ArrayOfEndPoint** (section 2.2.4.33) complex type.

BeginPoints: Specifies the available connection sources to filter and set conditions for the display of other reports and scorecards. This element MUST be present and MUST conform to the schema of the **ArrayOfParameterDefinition** (section 2.2.4.50) complex type.

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RendererClassName: Specifies the fully qualified name for the assembly class that provides the rendering for the scorecard. This attribute MUST be present. If the scorecard is a custom type, **RendererClassName** MUST be the assembly-qualified name of the custom type; otherwise, the value MUST be empty.

2.2.4.163 SecondClassElement

Namespace: http://www.microsoft.com/performancepoint/scorecards

This abstract class is the base class for ConfiguredView (section 2.2.4.77), DashboardElement (section 2.2.4.80), and KpiMeasure (section 2.2.4.129).

```
<xs:complexType name="SecondClassElement" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:Element">
      <xs:attribute name="Guid" xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"
use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Guid: The element's unique identifier.

2.2.4.164 SerializableDictionary

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies an ordered collection of elements of complex type **MemberSetFormula** (section 2.2.4.145), **MemberList** (section 2.2.4.135), or **Member** (section 2.2.4.134), with their associated string keys.

```
<xs:complexType name="SerializableDictionary" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Item" type="tns:Item"/>
  </xs:sequence>
</xs:complexType>
```

Item: Represents a key-value pair (section 2.2.4.127).

2.2.4.165 SetOperation

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a set operation.

It is the abstract base type for AddAllMembersSetOp, AddCalcMemberSetOp, AddChildrenSetOp, AddDefaultMemberSetOp, AddDescendantsLeavesSetOp, AddDescendantsSetOp, AddDescendantsSubtreeSetOp, AddFilterSetOp, AddFilterTopBottomSetOp, AddMemberSetOp, AddNamedSetSetOp, AddParentSiblingsSetOp, EliminateDescendantsSetOp and EliminateMemberSetOp.

```
<xs:complexType name="SetOperation" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Name" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="FilterValue1" type="xs:double"/>
    <xs:element minOccurs="1" maxOccurs="1" name="FilterValue2" type="xs:double"/>
```


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```
      <xs:element minOccurs="0" maxOccurs="1" name="TupleSet" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="TupleCaption" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="FilterHierarchy" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="FilterMeasure" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="DefaultMeasure" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="Level" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="LevelDepth" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="FilterType" type="xs:int"/>
      <xs:element minOccurs="0" maxOccurs="1" name="MemberDefinition" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
```

Name: Specifies the name of a set operation.

FilterValue1: This contains the first filter value for those filter operations that need two filter values (for example, filtering a set such that the result is between a given minimum and maximum values). This is also used for filter operations that only require one filter value.

FilterValue2: For filter operations that need two filter values, this contains the second filter value. This is ignored for filter operations that only need one filter value.

TupleSet: This is the string representation of the **tuple** set used in filter operation to specify what to filter. The tuple set definition MUST be a valid **MDX** expression.

TupleCaption: This contains the tuple caption that will be displayed on the information bar.

FilterHierarchy: This contains the hierarchy unique name in a valid MDX that is used on the filter operation.

FilterMeasure: This contains the measure display name in that is used on the filter operation.

DefaultMeasure: This attribute is deprecated from the protocol and MUST NOT be used.

Level: This is used in filter set operation. This contains the level display name where the filter is being applied.

LevelDepth: This is used in filter set operation. This contains the level number where the filter is being applied.

FilterType: Specifies the type of filter. This MUST be one of the following values

Value	Meaning
0	No filter specified
1	Specifies top count.
2	Specifies top percent.
3	Specifies top sum.
4	Specifies bottom count.
5	Specifies bottom percent.
6	Specifies bottom sum.
7	Specifies equal.
8	Specifies not equals.
9	Specifies greater than.

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Value	Meaning
10	Specifies greater than or equals.
11	Specifies less than.
12	Specifies less than or equals.
13	Specifies between.
14	Specifies not between.

MemberDefinition: This defines a calculated member in a valid MDX being added to a **MemberSet** (see section 2.2.4.144).

2.2.4.166 SqlReportViewData

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **SqlReportViewData** complex type contains all the state information for a SQL Reporting Services report.

```
<xs:complexType name="SqlReportViewData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="ReportName" type="xs:string"/>
  <xs:attribute name="ServerAddress" type="xs:string"/>
  <xs:attribute name="ServerUrl" type="xs:string"/>
  <xs:attribute name="ReportPath" type="xs:string"/>
  <xs:attribute name="ReportUrl" type="xs:string"/>
  <xs:attribute name="ReportMode" type="tns:SqlReportViewDataServerMode" use="required"/>
  <xs:attribute name="ShowToolbar" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowParameters" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowDocMap" type="xs:boolean" use="required"/>
  <xs:attribute name="DocMapId" type="xs:string"/>
  <xs:attribute name="Zoom" type="xs:string"/>
  <xs:attribute name="Section" type="xs:string"/>
  <xs:attribute name="Format" type="xs:string"/>
</xs:complexType>
```

ReportName: The SQL Reporting Services report name.

ServerAddress: The SQL Reporting Services **URL**. The URL is the path to the Report Server of the SQL Server Reporting Service.

ServerUrl: The SQL Report URL, when in "SharePoint Integrated" mode. The URL is the path to the Report Server of the SQL Server Reporting Service.

ReportPath: The server-relative SQL Report URL, when in "Report Center" mode. The report path is the actual path in the SQL Server Reporting Service reports list to the report desired.

ReportUrl: In "SharePoint Integrated" mode, it defines the path of the SQL Report RDL including the RDL extension.

ReportMode: Indicates whether the report is in "SharePoint Integrated" or "Report Center" mode.

ShowToolbar: When **TRUE**, the SQL Report toolbar is shown.

ShowParameters: When **TRUE**, the SQL Report parameter toolbar is shown.

ShowDocMap: When **TRUE**, the SQL Report document map toolbar is shown.

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DocMapId: The SQL Report document map identifier.

Zoom: The SQL Report zoom property.

Section: The SQL Report section property.

Format: The SQL Report format property.

2.2.4.167 StatusFilter

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies an **indicator** to be filtered.

```
<xs:complexType name="StatusFilter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="IndicatorLocationGuid" xmlns:s1="http://microsoft.com/wsdl/types/"
type="s1:guid" use="required"/>
  <xs:attribute name="BandIndex" type="xs:int" use="required"/>
</xs:complexType>
```

IndicatorLocationGuid: The unique identifier for the filtered **indicator**.<17>

BandIndex: The index of the **indicator band** for the filtered **indicator**. MUST be a valid index for the indicator used in the **IndicatorLocationGuid**.

2.2.4.168 StrategyMapViewData

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **StrategyMapViewData** complex type class specifies metadata information about a **strategy map**.

```
<xs:complexType name="StrategyMapViewData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" default="None" name="ToolbarOptions"
type="tns:StrategyMapToolbarOptions"/>
    <xs:element minOccurs="0" maxOccurs="1" name="VDX" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Version" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParentLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParentType"
type="tns:FirstClassObjectType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Parameters" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

ToolbarOptions: Specifies the toolbar configuration, as defined in the **StrategyMapToolbarOptions** simple type (section 2.2.5.49).

VDX: Specifies a base64-bit representation of the compressed VDX [MS-VGSFF] file that represents the strategy map.

Version: Specifies the version of the protocol client where the strategy map was created. The version MUST be a number displayed as "major number.minor number.build number.private part number". A product version MUST represent a 64-bit number that holds the version number according to the following format:

- The first 16 bits are the product major part number.

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- The next 16 bits are the product minor part number.
- The third set of 16 bits are the product build part number.
- The last 16 bits are the product private part number.

ParentLocation: Specifies the **FirstClassElement** complex type (section 2.2.4.99) that represents the parent location of the strategy map. This element MUST be present. It MUST conform to the schema of the **RepositoryLocation** complex type (section 2.2.4.161), and the **ItemUrl** attribute MUST NOT be **null**.

ParentType: The **ItemType** attribute for the parent **FirstClassElement**, as specified in **FirstClassObjectType** (section 2.2.5.20).

Parameters: This value MUST be an empty string.

2.2.4.169 StringCollection

Namespace: http://www.microsoft.com/performancepoint/scorecards

The StringCollection complex type specifies a collection of **dimension** properties.

```
<xs:complexType name="StringCollection" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

string: Specifies the name of the dimension property.

2.2.4.170 Target

Namespace: http://www.microsoft.com/performancepoint/scorecards

The target of a KPI used to **measure** against actual data.

```
<xs:complexType name="Target" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:KpiMeasure">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
        <xs:element minOccurs="0" maxOccurs="1" name="StatedScore" type="tns:KpiMeasure"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Banding" type="tns:Banding"/>
        <xs:element minOccurs="1" maxOccurs="1" name="RelatedActualId"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
      </xs:sequence>
      <xs:attribute name="IsRollupScore" type="xs:boolean" use="required"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

IndicatorLocation: The RepositoryLocation of the Indicator.

StatedScore: The **KpiMeasure** complex type (section 2.2.4.129) that the Target uses when the type of the **Banding** complex type (section 2.2.4.60) is "StatedScore". This value MUST NOT be **null,** if the type of **Banding** is "StatedScore".

Banding: The **Banding** data that correspond to the target.

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RelatedActualId: The **GUID** of the corresponding **Actuals** property of the **Kpi** complex type (section 2.2.4.128). This element MUST be present.

IsRollupScore: This attribute MUST be **true** if the score of this target is computed by rolling up the **child** scores, or MUST be **false** if the score is computed from the source data.

2.2.4.171 TimeIntelligenceDataSource

Namespace: http://www.microsoft.com/performancepoint/scorecards

A **time intelligence** data source reference used in time intelligence parameter definitions.

```
<xs:complexType name="TimeIntelligenceDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DisplayName" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

DataSourceLocation: The RepositoryLocation of the data source.

DisplayName: The display name of the data source.

2.2.4.172 TimeIntelligenceDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **TimeIntelligenceDefinition** complex type specifies **time intelligence** formulas and data sources. It is used in **CustomDefinition** of the **ParameterDefinition** complex type (section 2.2.4.155).

```
<xs:complexType name="TimeIntelligenceDefinition"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Formulas"
type="tns:ArrayOfTimeIntelligenceFormula"/>
    <xs:element minOccurs="0" maxOccurs="1" name="MasterDataSource"
type="tns:TimeIntelligenceDataSource"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DataSources"
type="tns:ArrayOfTimeIntelligenceDataSource"/>
  </xs:sequence>
</xs:complexType>
```

Formulas: See complex type **ArrayOfTimeIntelligenceFormula** (section 2.2.4.57).

MasterDataSource: The **TimeIntelligenceDataSource** (section 2.2.4.171) that is queried to populate the parameter display values.

DataSources: The **ArrayOfTimeIntelligenceDataSource** complex type (section 2.2.4.56) that are queried to populate the parameter message values.

2.2.4.173 TimeIntelligenceFormula

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a **time intelligence** parameter formula.

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```
<xs:complexType name="TimeIntelligenceFormula" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="DisplayName" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Formula" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

DisplayName: The display name of the formula.

Formula: The time intelligence **formula**. MUST NOT be **null**.

2.2.4.174 TimeIntelligenceLevelBinding

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the mapping of internal **cube dimensions** to their time aggregation level.

```
<xs:complexType name="TimeIntelligenceLevelBinding"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Level" type="tns:DateAggregationTypes"/>
    <xs:element minOccurs="0" maxOccurs="1" name="UniqueName" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Level: The DateAggregationType that indicates the level of the binding.

UniqueName: The unique name of the dimension in the cube that is mapped to the DateAggregationType indicated in Level. This element MUST be present.

2.2.4.175 TimeIntelligenceMdxSettings

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies how a **dimension** in an **Analysis Services** data source maps to a **time intelligence** filter when running **Simple Time Period Specification (STPS)** formulas against the data source.

```
<xs:complexType name="TimeIntelligenceMdxSettings"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:TimeIntelligenceSettings">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="ReferenceDimension"
type="tns:Dimension"/>
        <xs:element minOccurs="1" maxOccurs="1" name="ReferenceLevel"
type="tns:DateAggregationTypes"/>
        <xs:element minOccurs="0" maxOccurs="1" name="ReferenceMember" type="tns:Member"/>
        <xs:element minOccurs="1" maxOccurs="1" name="ReferenceDateTime" type="xs:dateTime"/>
        <xs:element minOccurs="0" maxOccurs="1" name="LevelBindings"
type="tns:ArrayOfTimeIntelligenceLevelBinding"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ReferenceDimension: Specifies the time dimension in the **cube** that is used when the STPS formula is run. See **Dimension** (section 2.2.4.90). This element MUST be present.

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ReferenceLevel: Specifies the lowest **hierarchy** level in the **ReferenceDimension** that will be available for STPS formulas run against the data source. See **DataAggregationTypes** (section 2.2.5.12).

ReferenceMember: Specifies the date **Member** (see section 2.2.4.134) in the dimension specified in the **ReferenceDimension** element that corresponds to the date provided in the **ReferenceDateTime** element. This element MUST be present.

ReferenceDateTime: Specifies the actual date to which the value in the **ReferenceMember** element maps.

LevelBindings: Specifies the **ArrayOfTimeIntelligenceLevelBinding** (see section 2.2.4.58) that maps the internal cube member levels to their corresponding STPS formula. If there is no mapping for one or more of the member levels, the **member (2)** level MUST NOT have a binding present in this array. This element MUST be present.

2.2.4.176 TimeIntelligencePostFormulaDefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type specifies a **time intelligence** post **formula** filter definition.

```
<xs:complexType name="TimeIntelligencePostFormulaDefinition"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="MasterDataSource" type="tns:DataSource"/>
    <xs:element minOccurs="0" maxOccurs="1" name="DataSources" type="tns:ArrayOfDataSource"/>
  </xs:sequence>
</xs:complexType>
```

MasterDataSource: The DataSource (see section 2.2.4.85) that is queried to populate the parameter display values (see section 2.2.4.155).

DataSources: The data sources (see section 3.1.4.19.3.2) that are queried to populate the parameter message values (See section 2.2.4.155).

2.2.4.177 TimeIntelligenceSettings

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies additional **time intelligence** settings for a data source.

```
<xs:complexType name="TimeIntelligenceSettings" abstract="true"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Enabled" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

Enabled: This value MUST be **true** if the time intelligence setting is enabled; otherwise, **false**.

2.2.4.178 Title

Namespace: http://www.microsoft.com/performancepoint/scorecards

This complex type represents a title for an analytic chart.

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```
<xs:complexType name="Title" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Font" type="tns:XmlFont"/>
    <xs:element minOccurs="0" maxOccurs="1" name="FontColor" type="xs:string"/>
  </xs:sequence>
  <xs:attribute default="" name="Text" type="xs:string"/>
  <xs:attribute default="Center" name="Alignment" type="tns:AlignmentType"/>
</xs:complexType>
```

Font: The font, specified by **XmlFont** (see section 2.2.4.181). This MUST be present.

FontColor: The font color, specified by a string. This MUST be present and MUST be one of the following formats:

- "NamedColor:<name>" where:
  - "<name>" is the name of a predefined color, specified by a case-insensitive string. Values MUST be the same as the names of the elements in the Color Table (see section 2.2.4.14).
  - Example: "NamedColor:Black".
- "ARGBColor:<A>:<R>:<G>:<B>" where:
  - "<A>" is the alpha component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<R>" is the red component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<G>" is the green component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - "<B>" is the blue component, specified by a string. Values MUST NOT be less than 0 and MUST NOT be greater than 255.
  - Example: "ARGBColor:255:255:255:255".

Text: The title text, specified by a string.

Alignment: The alignment, specified by **AlignmentType** (see section 2.2.5.2).

2.2.4.179 ToolbarOptions

Namespace: http://www.microsoft.com/performancepoint/scorecards

Contains the configuration settings of the toolbar of a **ConfiguredView** (section 2.2.4.77).

```
<xs:complexType name="ToolbarOptions" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="ShowInlineText" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowToolbar" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowStatusFilter" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowToolTips" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowCollapse" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowMode" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowExpand" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowToolbarItemsLabel" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowDefaultRollup" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowWorstChildRollup" type="xs:boolean" use="required"/>
  <xs:attribute name="ShowIndicatorCount" type="xs:boolean" use="required"/>
</xs:complexType>
```


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ShowInlineText: This attribute MUST be **true** if the inline text button MUST be shown; **false** if not.

ShowToolbar: Specifies whether the toolbar is shown or not.

1. If set to **true**, toolbar MUST be shown following the toolbar configuration settings.

2. If set to **false**, toolbar MUST NOT be shown, and toolbar configuration settings MUST be ignored.

ShowStatusFilter: This attribute MUST be **true** if the status filtering options (see StatusFilter, section 2.2.4.167) MUST be shown; **false** if not. MUST be ignored if the **AllowStatusFilter** of the related **ConfiguredView** (section 2.2.4.77) is set to **false**, in which case the filtering options MUST NOT be shown.

ShowToolTips: This attribute MUST be **true** if **ToolTips** MUST display in the toolbar buttons and options; **false** if not.

ShowCollapse: This attribute MUST be **true** if the collapse all button MUST be shown; **false** if not.

ShowMode: This attribute MUST be **true** if the button to switch between tree and flat mode MUST be shown; **false** if not.

ShowExpand: This attribute MUST be **true** if the expand all button MUST be shown; **false** if not.

ShowToolbarItemsLabel: Specifies whether the toolbar buttons are rendered with text label or not

1. If set to **true**, toolbar options and buttons MUST include both icon and text label.

2. If set to **false**, toolbar options and buttons MUST NOT include the text labels and MUST only include icon.

ShowDefaultRollup: This attribute MUST be **true** if the default **rollup** button MUST be shown; **false** if not.

ShowWorstChildRollup: This attribute MUST be **true** if the worst **child** rollup button MUST be shown; **false** if not.

ShowIndicatorCount: This attribute MUST be **true** if the indicator count rollup button MUST be shown; **false** if not.

2.2.4.180 Tuple

Namespace: http://www.microsoft.com/performancepoint/scorecards/Analytics

The **Tuple** complex type<18> represents an ordered collection of one or more **Member** complex types (section 2.2.4.134) from different **dimensions**. It contains an instance of **SerializableDictionary** complex type (section 2.2.4.164).

```
<xs:complexType name="Tuple" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="memberDictionary"
type="tns:SerializableDictionary"/>
  </xs:sequence>
</xs:complexType>
```

memberDictionary: This element MUST NOT be null.

2.2.4.181 XmlFont

Namespace: http://www.microsoft.com/performancepoint/scorecards

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Specifies a set of attributes that define a font.

```
<xs:complexType name="XmlFont" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="FontFamily" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="GraphicsUnit" type="tns:GraphicsUnit"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Size" type="xs:float"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Style" type="tns:FontStyle"/>
  </xs:sequence>
</xs:complexType>
```

FontFamily: Specifies a group of typefaces having a similar basic design and style, such as "Arial" or "Courier". It SHOULD be set to a font family name that the **server (2)** can recognize. If the server (2) cannot recognize the font family name, it MUST instead use a font family name it does recognize.

GraphicsUnit: Specifies the unit of measure for the font as specified by **GraphicsUnit** (section 2.2.5.24).

Size: Specifies the em-size of the font in the units specified by the **GraphicsUnit** attribute.

Style: Specifies style information applied to the font as specified by **FontStyle** (section 2.2.5.21).

2.2.5 Simple Types

The following table summarizes the set of common **XML schema** simple type definitions defined by this specification. XML schema simple type definitions that are specific to a particular operation are described with the operation.

Simple type	Description
AggregateTypeEnum	The **AggregateTypeEnum** simple type specifies the method by which a KpiMeasure will be aggregated.
AlignmentType	Specifies the alignment of a text string relative to its layout rectangle.
AnalyticChartType	Type of chart to display.
AnalyticLegendLocation	The location of the analytic chart legend.
AnalyticMarkerStyle	The **AnalyticMarkerStyle** simple type specifies a Data Point marker shape for a line-type series of the **report view**.
AnnotationVersions	Specifies the product version that was used to create the annotation.
AxisType	The **AxisType** simple type specifies the type of an axis (as described in [MSDN-Axis]) in a query result.
BandType	Specifies the type of the **banding** for the **Target** (see section 2.2.4.170).
BeginPointEmitterType	The **BeginPointEmitterType** simple type specifies the type of information the parameter emits.
ConnectionContext	The **ConnectionContext** simple type specifies what identity is used to connect to the data source.
DataValuePosition	Specifies the display positioning for a data value.
DateAggregationTypes	This simple type represents a category of time intervals and MUST contain an **item** from the enumerated list.
DimensionTypeEnum	Specifies the type of information in a **dimension**.

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Simple type	Description
EndPointCategory	The category specifying sort and filter **EndPoints** when connecting provider **Web Parts** to consumer Web Parts on the **Dashboard**.
ExcelServicesToolbarOptions	Specifies the toolbar options for an Excel Services ([MS-ESP]) report.
ExcelServicesToolbarType	Specifies which type of toolbar is shown on the Excel Services ([MS-ESP]) report.
ExcelServicesViewOptions	The **ExcelServicesViewOptions** simple type specifies how a user is allowed to interact with an Excel Services report ([MS-ESP]).
FactAggregations	This simple type specifies the type of aggregation to be performed on a numeric fact column in a tabular data set. The values are exclusive; that is, exactly one MUST be present in any field that uses this type.
FilterSelectionMode	Specifies the manner in which the items in a Filter (see section 2.2.4.98) can be selected.
FirstClassObjectType	Specifies the type of a first-class object.
FontStyle	Specifies style information applied to the font. It MUST equal **Regular** or any combination of the other values.
FormatNegativeSymbol	This simple type specifies the formatting pattern for negative numbers when custom formatting is used. Positive values are not affected. See KpiNumberFormatProperties (section 2.2.4.130).
FormatType	Defines the formatting pattern for numeric values. See KpiNumberFormatProperties (section 2.2.4.130).
GraphicsUnit	Specifies the unit of measure for the font.
GridCellElmentStatus	The **GridCellElmentStatus** simple type specifies the status of a display element of a **scorecard cell**. It MUST be zero, one or two.
HeaderAggregationTypes	This simple type specifies the type of aggregation used by the Scorecard.
HierarchyOrigin	This simple type specifies the overall structure of a **hierarchy**.
HierarchyType	This simple type specifies the type of an **OLAP** hierarchy.
HorizontalAlignments	This simple type specifies how an object or text in a control is horizontally aligned relative to the control element.
IndicatorPosition	The**IndicatorPosition** simple type specifies the position of the indicator within the target value cell.
IndicatorType	This simple type specifies whether the **indicator bands** indicate a better or worse status as values move lower or higher, or whether the **indicator bands** indicate a better or worse status as values move closer to the center.
KpiPattern	This simple type specifies how banding and scoring change in appearance according to the setting of the KPI pattern.
LayoutOrientation	This simple type defines the layout of items within a DashboardElementContainer (see section 2.2.4.81).
MappedColumnDataTypes	This simple type specifies the data type of the mapped columns in DataColumnMapping (see section 2.2.4.84).
MappedColumnTypes	This simple type specifies the classification of a mapped column in **DataColumnMapping** (see section 2.2.4.84).

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Simple type	Description
MemberRelationship	This simple type specifies the relationship among dimension members (see section 2.2.4.90). Member (see section 2.2.4.134) relationships are used in the context of a referred member.
MemberTransformOperation	This simple type specifies the **transform** action that the **MemberTransform** (section 2.2.4.146) will use.
MemberTransformType	This simple type specifies the classification of the **MemberTransform** (section 2.2.4.146).
MemberType	This simple type specifies the type represented by the member (section 2.2.4.134) object.
ReportLayout	Specifies the way that row and column headers are displayed in a grid report.
RollupTypes	This simple type enumeration specifies the types of **rollup** behavior that can be exhibited by a target column in a scorecard.
ScorecardEmptyRowsFilterMode	This simple type enumeration specifies whether to display scorecard rows with empty cells. A scorecard **GridCell** (section 2.2.4.100) is considered empty if **DisplayElements** does not contain any **GridDisplayElements** (section 2.2.4.103) with a **Status** of 0, as specified in **GridCellElmentStatus** (section 2.2.5.25).
ScorecardNamedSetType	This simple type enumeration specifies how to define a set of dimension **members (2)**. It is used by **GridHeaderItem** (section 2.2.4.116) when the attribute **HeaderType** is set to "NamedSet", as specified in **ScorecardNodeTypes** (section 2.2.5.44).
ScorecardNodeTypes	This simple type enumeration specifies the type of scorecard node header. This is used in the GridHeaderItem (section 2.2.4.116).
ScoreTypes	This simple type enumeration specifies the type of **score** to be used when rolling up the target column in a scorecard.
SizeType	This simple type enumeration specifies the size unit in **DashboardElementSize** (section 2.2.4.82).
SortType	The **SortType** simple type specifies the manner in which the values in a query result are sorted.
SqlReportViewDataServerMode	The SqlReportViewDataServerMode simple type indicates when SQL Server Reporting Services integrated into a SharePoint **server (1)**.
StrategyMapToolbarOptions	The **StrategyMapToolbarOptions** simple type specifies the view options for a **strategy map** report.
Trinary	This simple type specifies an enumeration type that has three possible values.
ValueSources	This simple type enumeration specifies how rollup values are computed. The enumeration determines how values for parent scorecard row items will be computed from the values of **child** scorecard row items within the same scorecard column.
VarianceDisplayType	This simple type enumeration specifies how a **variance** value is calculated and presented.
VarianceType	This simple type enumeration specifies how a **variance** calculation uses **indicator status band** and target values.
VerticalAlignments	This simply type enumeration specifies a vertical alignment of content

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Simple type	Description
	within a grid cell or display element.

2.2.5.1 AggregateTypeEnum

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AggregateTypeEnum** simple type specifies the method by which a KpiMeasure will be aggregated.

```
<xs:simpleType name="AggregateTypeEnum" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Default"/>
    <xs:enumeration value="Sum"/>
    <xs:enumeration value="Minimum"/>
    <xs:enumeration value="Maximum"/>
    <xs:enumeration value="Count"/>
    <xs:enumeration value="Average"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **AggregateTypeEnum** simple type.

Value	Meaning
Default	Query using the default KpiMeasure aggregation.
Sum	Query the total value of the KpiMeasure.
Minimum	Query the minimum value of the KpiMeasure.
Maximum	Query the maximum value of the KpiMeasure.
Count	Query the count of values in the KpiMeasure.
Average	Query the average value of the KpiMeasure.

2.2.5.2 AlignmentType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the alignment of a text string relative to its layout rectangle.

```
<xs:simpleType name="AlignmentType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Left"/>
    <xs:enumeration value="Right"/>
    <xs:enumeration value="Center"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **AlignmentType** simple type.

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Value	Meaning
Left	Specifies that the text be aligned left of the layout rectangle.
Right	Specifies that the text be aligned right of the layout rectangle.
Center	Specifies that the text be aligned center of the layout rectangle.

2.2.5.3 AnalyticChartType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Type of chart to display.

```
<xs:simpleType name="AnalyticChartType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="Column"/>
    <xs:enumeration value="ColumnStacked"/>
    <xs:enumeration value="ColumnStacked100"/>
    <xs:enumeration value="Line"/>
    <xs:enumeration value="Pie"/>
    <xs:enumeration value="Bar"/>
    <xs:enumeration value="BarStacked"/>
    <xs:enumeration value="BarStacked100"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **AnalyticChartType** simple type.

Value	Meaning
None	The type of chart has not been set.
Column	Displays a vertical bar chart.
ColumnStacked	Displays a stacked vertical bar chart.
ColumnStacked100	Displays a stacked vertical bar chart with bars sized as a percentage of the total.
Line	Displays a line chart.
Pie	Displays a pie chart.
Bar	Displays a horizontal bar chart.
BarStacked	Displays a stacked horizontal bar chart.
BarStacked100	Displays a stacked horizontal bar chart with bars sized as a percentage of the total.

2.2.5.4 AnalyticLegendLocation

Namespace: http://www.microsoft.com/performancepoint/scorecards

The location of the analytic chart legend.

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```
<xs:simpleType name="AnalyticLegendLocation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="Right"/>
    <xs:enumeration value="Top"/>
    <xs:enumeration value="Bottom"/>
    <xs:enumeration value="Left"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **AnalyticLegendLocation** simple type.

Value	Meaning
None	The legend is not displayed.
Right	The legend is displayed to the right of the analytic chart.
Top	The legend is displayed on top of the analytic chart.
Bottom	The legend is displayed on the bottom of the analytic chart.
Left	The legend is displayed to the left of the analytic chart.

2.2.5.5 AnalyticMarkerStyle

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AnalyticMarkerStyle** simple type specifies a Data Point marker shape for a line-type series of the **report view**.

```
<xs:simpleType name="AnalyticMarkerStyle" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="Square"/>
    <xs:enumeration value="Circle"/>
    <xs:enumeration value="Diamond"/>
    <xs:enumeration value="Triangle"/>
    <xs:enumeration value="Cross"/>
    <xs:enumeration value="Star4"/>
    <xs:enumeration value="Star5"/>
    <xs:enumeration value="Star6"/>
    <xs:enumeration value="Star10"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **AnalyticMarkerStyle** simple type.

Value	Meaning
None	No marker is displayed for the series/**data point**.
Square	A square marker is displayed.
Circle	A circular marker is displayed.
Diamond	A diamond-shaped marker is displayed.

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Value	Meaning
Triangle	A triangular marker is displayed.
Cross	A cross-shaped marker is displayed.
Star4	A 4-point star-shaped marker is displayed.
Star5	A 5-point star-shaped marker is displayed.
Star6	A 6-point star-shaped marker is displayed.
Star10	A 10-point star-shaped marker is displayed.

2.2.5.6 AnnotationVersions

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the product version that was used to create the annotation.

```
<xs:simpleType name="AnnotationVersions" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Office14Beta2"/>
    <xs:enumeration value="Office14Beta1"/>
    <xs:enumeration value="Pps2007"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **AnnotationVersions** simple type.

Value	Meaning
Office14Beta2	Annotation was created with a Beta2 or RTM version<19>.
Office14Beta1	Annotation was created with a Beta1 version<20>.
Pps2007	Annotation was created with a prior production version.<21>

2.2.5.7 AxisType

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AxisType** simple type specifies the type of an axis (as described in [MSDN-Axis]) in a query result.

```
<xs:simpleType name="AxisType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Filter"/>
    <xs:enumeration value="Columns"/>
    <xs:enumeration value="Rows"/>
    <xs:enumeration value="Pages"/>
    <xs:enumeration value="Sections"/>
    <xs:enumeration value="Chapters"/>
  </xs:restriction>
</xs:simpleType>
```


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The following table specifies the allowable values for the **AxisType** simple type.

Value	Meaning
Filter	Specifies a FILTER axis type or the **slicer** axis of the query.
Columns	Specifies a COLUMNS axis type that contains the column definition of the query.
Rows	Specifies a ROWS axis type that contains the row definition of the query.
Pages	Specifies a PAGES axis type that contains the page definition of the query. This axis type is unused.
Sections	Specifies a SECTIONS axis type that contains the section definition of the query. This axis type is unused.
Chapters	Specifies a CHAPTERS axis type that contains the chapter definition of the query. This axis type is unused.

2.2.5.8 BandType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the type of the **banding** for the **Target** (see section 2.2.4.170).

```
<xs:simpleType name="BandType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Normalized"/>
    <xs:enumeration value="Actual"/>
    <xs:enumeration value="StatedScore"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **BandType** simple type.

Value	Meaning
Normalized	The value will be **normalized**.
Actual	The actual value will be used.
StatedScore	The selected Target value will be used. See Target.StatedScore (section 2.2.4.170).

2.2.5.9 BeginPointEmitterType

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **BeginPointEmitterType** simple type specifies the type of information the parameter emits.

```
<xs:simpleType name="BeginPointEmitterType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="BothAConditionalVisibilityAndParameterEmitter"/>
    <xs:enumeration value="ConditionalVisibilityEmitter"/>
    <xs:enumeration value="ParameterEmitter"/>
  </xs:restriction>
</xs:simpleType>
```


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The following table specifies the allowable values for the **BeginPointEmitterType** simple type.

Value	Meaning
BothAConditionalVisibilityAndParameterEmitter	Emits information that is used for setting conditional visibility values that indicate a connected **Web Part** is visible and parameter values.
ConditionalVisibilityEmitter	Emits information that is used for setting conditional visibility values that indicate a connected Web Part is visible.
ParameterEmitter	Emits information that is used for setting parameter values.

2.2.5.10 ConnectionContext

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ConnectionContext** simple type specifies what identity is used to connect to the data source.

```
<xs:simpleType name="ConnectionContext" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="ConnectAsUser"/>
    <xs:enumeration value="ConnectAsSharedUser"/>
    <xs:enumeration value="SecureStoreCredentials"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ConnectionContext** simple type.

Value	Meaning
ConnectAsUser	Connects to the data source using the user credentials.
ConnectAsSharedUser	Connects to the data source using the shared account credentials.
SecureStoreCredentials	Connects to the data source using credentials obtained from the Secure Store ([MS-SSWPS]).

2.2.5.11 DataValuePosition

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the display positioning for a data value.

```
<xs:simpleType name="DataValuePosition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Left"/>
    <xs:enumeration value="Right"/>
    <xs:enumeration value="NotDisplayed"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **DataValuePosition** simple type.

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Value	Meaning
Left	Specifies that the data value will be displayed on the left.
Right	Specifies that the data value will be displayed on the right.
NotDisplayed	Specifies that the data value will not be displayed.

2.2.5.12 DateAggregationTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type represents a category of time intervals and MUST contain an **item** from the enumerated list.

```
<xs:simpleType name="DateAggregationTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="Second"/>
        <xs:enumeration value="Minute"/>
        <xs:enumeration value="Hour"/>
        <xs:enumeration value="Day"/>
        <xs:enumeration value="Week"/>
        <xs:enumeration value="Month"/>
        <xs:enumeration value="Quarter"/>
        <xs:enumeration value="Year"/>
        <xs:enumeration value="Semester"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **DateAggregationTypes** simple type.

Value	Meaning
None	No time interval is defined.
Second	Intervals are seconds.
Minute	Intervals are minutes.
Hour	Intervals are hours.
Day	Intervals are days.
Week	Intervals are weeks.
Month	Intervals are months.
Quarter	Intervals are quarters.
Year	Intervals are years.
Semester	Intervals are half years or semesters.

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2.2.5.13 DimensionTypeEnum

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the type of information in a **dimension**.

```
<xs:simpleType name="DimensionTypeEnum" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Accounts"/>
    <xs:enumeration value="BillOfMaterials"/>
    <xs:enumeration value="Channel"/>
    <xs:enumeration value="Currency"/>
    <xs:enumeration value="Customers"/>
    <xs:enumeration value="Geography"/>
    <xs:enumeration value="Measure"/>
    <xs:enumeration value="Organization"/>
    <xs:enumeration value="Other"/>
    <xs:enumeration value="Products"/>
    <xs:enumeration value="Promotion"/>
    <xs:enumeration value="Quantitative"/>
    <xs:enumeration value="Rates"/>
    <xs:enumeration value="Scenario"/>
    <xs:enumeration value="Time"/>
    <xs:enumeration value="Unknown"/>
    <xs:enumeration value="Utility"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **DimensionTypeEnum** simple type.

Value	Meaning
Accounts	The dimension contains an accounts structure with parent-child relationships.
BillOfMaterials	The dimension represents a material/component breakdown. The parent-child relationship implies a parent composed of its **child** elements.
Channel	The dimension contains information about a distribution channel.
Currency	The dimension contains currency information.
Customers	The dimension contains customer information. The lowest level represents individual customers.
Geography	The dimension contains a geographic hierarchy.
Measure	The dimension contains **measures**.
Organization	The dimension represents the reporting structure of an organization.
Other	The dimension type is not Time, Measure or otherwise specified.
Products	The dimension contains product information. The lowest level contains individual products.
Promotion	The dimension contains information about marketing and advertising promotions.
Quantitative	The dimension contains quantitative elements (for example, income level, or number of child elements).
Rates	The dimension contains different types of rates (for example, buy, sell, or discounted).
Scenario	The dimension contains different business scenarios.
Time	The dimension refers to time (for example, year, month, week, day).

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Value	Meaning
Unknown	The type of the dimension is not specified.
Utility	The dimension contains only calculated members.

2.2.5.14 EndPointCategory

Namespace: http://www.microsoft.com/performancepoint/scorecards

The category specifying sort and filter **EndPoints** when connecting provider **Web Parts** to consumer Web Parts on the **Dashboard**.

```
<xs:simpleType name="EndPointCategory" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="Axis"/>
    <xs:enumeration value="ColumnHierarchy"/>
    <xs:enumeration value="RowHierarchy"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **EndPointCategory** simple type.

Value	Meaning
None	EndPoint has no category
Axis	EndPoint is a Scorecard Axis
ColumnHierarchy	EndPoint is a Scorecard Column Hierarchy
RowHierarchy	EndPoint is a Scorecard Row Hierarchy

2.2.5.15 ExcelServicesToolbarOptions

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the toolbar options for an Excel Services ([MS-ESP]) report.

```
<xs:simpleType name="ExcelServicesToolbarOptions"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="AllowInExcelOperations"/>
        <xs:enumeration value="AllowRefreshConnections"/>
        <xs:enumeration value="AllowRecalculation"/>
        <xs:enumeration value="ShowVisibleItemButton"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **ExcelServicesToolbarOptions** simple type.

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Value	Meaning
AllowInExcelOperations	Allows operations that open the Excel **workbook** ([MS-XLS]).
AllowRefreshConnections	Allows data connections in the Excel workbook to refresh.
AllowRecalculation	Allows users to recalculate the Excel workbook.
ShowVisibleItemButton	Shows the view menu to enable users to change the currently displayed **published item**.

2.2.5.16 ExcelServicesToolbarType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies which type of toolbar is shown on the Excel Services ([MS-ESP]) report.

```
<xs:simpleType name="ExcelServicesToolbarType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="FullToolbar"/>
    <xs:enumeration value="SummaryToolbar"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ExcelServicesToolbarType** simple type.

Value	Meaning
None	No toolbar is displayed.
FullToolbar	The full toolbar is displayed.
SummaryToolbar	The summary toolbar is displayed.

2.2.5.17 ExcelServicesViewOptions

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ExcelServicesViewOptions** simple type specifies how a user is allowed to interact with an Excel Services report ([MS-ESP]).

```
<xs:simpleType name="ExcelServicesViewOptions" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="AllowInteractivity"/>
        <xs:enumeration value="AllowParameterModification"/>
        <xs:enumeration value="ShowWorkbookParameters"/>
        <xs:enumeration value="AllowSorting"/>
        <xs:enumeration value="AllowFiltering"/>
        <xs:enumeration value="AllowHyperlinks"/>
        <xs:enumeration value="AllowPivotSpecificOperations"/>
        <xs:enumeration value="AllowPeriodicRefresh"/>
        <xs:enumeration value="CloseWorkbookSessions"/>
        <xs:enumeration value="AllowScratchPadMode"/>
```


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```
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **ExcelServicesViewOptions** simple type.

Value	Meaning
AllowInteractivity	Allows users to interact with the **workbook**.
AllowParameterModification	Allows users to change workbook parameters.
ShowWorkbookParameters	Allows users to view and edit workbook parameters.
AllowSorting	Allows users to sort when using **AutoFilter**, **lists (1)**, and **PivotTables**.
AllowFiltering	Allows users to filter when using AutoFilter, lists (1), and PivotTables.
AllowHyperlinks	Allows users to use hyperlinks in the workbook.
AllowPivotSpecificOperations	Allows users to **drilldown**, find **members (2)**, and take actions in PivotTables in the workbook.
AllowPeriodicRefresh	Allows Excel Services to perform periodic refreshes of external data sources if the data connection has a refresh interval defined.
CloseWorkbookSessions	Closes the current workbook before opening a new one.
AllowScratchPadMode	The value of this element MUST be ignored.

2.2.5.18 FactAggregations

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the type of aggregation to be performed on a numeric fact column in a tabular data set. The values are exclusive; that is, exactly one MUST be present in any field that uses this type.

```
<xs:simpleType name="FactAggregations" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Average"/>
    <xs:enumeration value="Count"/>
    <xs:enumeration value="Max"/>
    <xs:enumeration value="Min"/>
    <xs:enumeration value="None"/>
    <xs:enumeration value="StDev"/>
    <xs:enumeration value="Sum"/>
    <xs:enumeration value="Variance"/>
    <xs:enumeration value="FirstOccurance"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **FactAggregations** simple type.

Value	Meaning
Average	Calculate the average of numeric fact values.

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Value	Meaning
Count	Calculate the total number of fact values.
Max	Determine the largest numeric fact value.
Min	Determine the smallest numeric fact value.
None	Perform no aggregation.
StDev	Calculate the variance of the numeric fact values.
Sum	Calculate the sum of the numeric fact values.
Variance	Calculate the statistical variance of the numeric fact values.
FirstOccurance	Determine the first fact value that occurs for each unique column member.

2.2.5.19 FilterSelectionMode

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the manner in which the **items** in a Filter (see section 2.2.4.98) can be selected.

```
<xs:simpleType name="FilterSelectionMode" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="SingleSelect"/>
    <xs:enumeration value="MultiSelect"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **FilterSelectionMode** simple type.

Value	Meaning
SingleSelect	Single select parameter selection. Only one item can be selected for the filter at one time.
MultiSelect	Multi select parameter selection. Multiple items can be selected for the filter at one time.

2.2.5.20 FirstClassObjectType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the type of a first-class object.

```
<xs:simpleType name="FirstClassObjectType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="Kpi"/>
    <xs:enumeration value="Scorecard"/>
    <xs:enumeration value="ReportView"/>
    <xs:enumeration value="Indicator"/>
    <xs:enumeration value="DataSource"/>
    <xs:enumeration value="Dashboard"/>
    <xs:enumeration value="TempReportView"/>
    <xs:enumeration value="Filter"/>
```


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```
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **FirstClassObjectType** simple type.

Value	Meaning
None	Indicates the object type is undefined
Kpi	Indicates the object is a Kpi (see section 2.2.4.128).
Scorecard	Indicates the object is a Scorecard (see section 2.2.4.162)
ReportView	Indicates the object is a ReportView (see section 2.2.4.160)
Indicator	Indicates the object is an Indicator (see section 2.2.4.125)
DataSource	Indicates the object is a DataSource (see section 2.2.4.85)
Dashboard	Indicates the object is a Dashboard (see section 2.2.4.79)
TempReportView	Indicates the object is a temporary ReportView (see section 2.2.4.160) as created by SaveTemporaryAnalyticReport
Filter	Indicates the object is a Filter (see section 2.2.4.98)

2.2.5.21 FontStyle

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies style information applied to the font. It MUST equal **Regular** or any combination of the other values.

```
<xs:simpleType name="FontStyle" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Regular"/>
        <xs:enumeration value="Bold"/>
        <xs:enumeration value="Italic"/>
        <xs:enumeration value="Underline"/>
        <xs:enumeration value="Strikeout"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **FontStyle** simple type.

Value	Meaning
Regular	Normal text.
Bold	Bold text.
Italic	Italic text.
Underline	Underlined text.

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Value	Meaning
Strikeout	Text with a line through the middle.

2.2.5.22 FormatNegativeSymbol

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the formatting pattern for negative numbers when custom formatting is used. Positive values are not affected. See KpiNumberFormatProperties (section 2.2.4.130).

```
<xs:simpleType name="FormatNegativeSymbol" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NegativeSign"/>
    <xs:enumeration value="Parenthesis"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **FormatNegativeSymbol** simple type.

Value	Meaning
NegativeSign	Show minus sign preceding to the number. Example: -42.15
Parenthesis	Enclose the number in parenthesis. Example: (42.15)

2.2.5.23 FormatType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Defines the formatting pattern for numeric values. See KpiNumberFormatProperties (section 2.2.4.130).

```
<xs:simpleType name="FormatType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Default"/>
    <xs:enumeration value="Number"/>
    <xs:enumeration value="Currency"/>
    <xs:enumeration value="Percentage"/>
    <xs:enumeration value="Unknown"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **FormatType** simple type.

Value	Meaning
Default	No formatting. Formatting of the data source is used.
Number	General numeric formatting—for example, 12,222.003

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Value	Meaning
Currency	Currency formatting—for example, $25.00
Percentage	Percentage formatting—for example, 25%
Unknown	Null or undetermined formatting

2.2.5.24 GraphicsUnit

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the unit of measure for the font.

```
<xs:simpleType name="GraphicsUnit" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="World"/>
    <xs:enumeration value="Display"/>
    <xs:enumeration value="Pixel"/>
    <xs:enumeration value="Point"/>
    <xs:enumeration value="Inch"/>
    <xs:enumeration value="Document"/>
    <xs:enumeration value="Millimeter"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **GraphicsUnit** simple type.

Value	Meaning
World	Specifies the world coordinate system unit as the unit of measure.
Display	Specifies the unit of measure of the display device. Typically **pixels** for video displays, and 1/100 inch for printers.
Pixel	Specifies a device pixel as the unit of measure.
Point	Specifies a printer's point (1/72 inch) as the unit of measure.
Inch	Specifies the inch as the unit of measure.
Document	Specifies the document unit (1/300 inch) as the unit of measure.
Millimeter	Specifies the millimeter as the unit of measure.

2.2.5.25 GridCellElmentStatus

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **GridCellElmentStatus** simple type specifies the status of a display element of a **scorecard cell**. It MUST be zero, one or two.

```
<xs:simpleType name="GridCellElmentStatus" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="0"/>
    <xs:enumeration value="1"/>
```


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```
      <xs:enumeration value="2"/>
    </xs:restriction>
  </xs:simpleType>
```

The following table specifies the allowable values for the **GridCellElmentStatus** simple type.

Value	Meaning
0	OK: Specifies that element is displayed correctly
1	Error: Specifies that element is in error: error state is displayed. See the **InvalidCell** property of the **GridViewDefinition** complex type (section 2.2.4.122)
2	Null: Specifies that element is empty: empty state is displayed. See the **EmptyCell** property of **GridViewDefinition**

2.2.5.26 HeaderAggregationTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the type of aggregation used by the **Scorecard**.

```
<xs:simpleType name="HeaderAggregationTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="Sum"/>
    <xs:enumeration value="Average"/>
    <xs:enumeration value="Min"/>
    <xs:enumeration value="Max"/>
    <xs:enumeration value="Trend"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **HeaderAggregationTypes** simple type.

Value	Meaning
None	No aggregation
Sum	Aggregate the sum value
Average	Aggregate the average value
Min	Aggregate the minimum value
Max	Aggregate the maximum value
Trend	Aggregate the trend of the last two sibling values

2.2.5.27 HierarchyOrigin

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the overall structure of a **hierarchy**.

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```
<xs:simpleType name="HierarchyOrigin" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="AttributeHierarchy"/>
    <xs:enumeration value="ParentChildHierarchy"/>
    <xs:enumeration value="UserHierarchy"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **HierarchyOrigin** simple type.

Value	Meaning
None	The hierarchy has no structure.
AttributeHierarchy	The hierarchy is an **attribute hierarchy**.
ParentChildHierarchy	The hierarchy is a parent-child hierarchy.
UserHierarchy	The hierarchy is a user-defined hierarchy.

2.2.5.28 HierarchyType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the type of an **OLAP** hierarchy.

```
<xs:simpleType name="HierarchyType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Standard"/>
    <xs:enumeration value="Measure"/>
    <xs:enumeration value="Time"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **HierarchyType** simple type.

Value	Meaning
Standard	Indicates a Standard OLAP hierarchy.
Measure	Indicates a Measured OLAP hierarchy.
Time	Indicates a Time OLAP hierarchy.

2.2.5.29 HorizontalAlignments

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies how an object or text in a control is horizontally aligned relative to the control element.

```
<xs:simpleType name="HorizontalAlignments" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
```


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```
      <xs:enumeration value="Undefined"/>
      <xs:enumeration value="Left"/>
      <xs:enumeration value="Center"/>
      <xs:enumeration value="Right"/>
    </xs:restriction>
  </xs:simpleType>
```

The following table specifies the allowable values for the **HorizontalAlignments** simple type.

Value	Meaning
Undefined	No horizontal alignment is applied to the object or text.
Left	The object or text is aligned on the left of the control element.
Center	The object or text is aligned in the center of the control element.
Right	The object or text is aligned on the right of the control element.

2.2.5.30 IndicatorPosition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The**IndicatorPosition** simple type specifies the position of the indicator within the target value **cell**.

```
<xs:simpleType name="IndicatorPosition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Left"/>
    <xs:enumeration value="Right"/>
    <xs:enumeration value="Center"/>
    <xs:enumeration value="NotDisplayed"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **IndicatorPosition** simple type.

Value	Meaning
Left	Display the indicator against the left edge of the cell.
Right	Display the indicator against the right edge of the cell.
Center	Display the indicator in the center of the cell between the two numeric values.
NotDisplayed	Do not display the indicator.

2.2.5.31 IndicatorType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies whether the **indicator bands** indicate a better or worse status as values move lower or higher, or whether the **indicator bands** indicate a better or worse status as values move closer to the center.

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```
<xs:simpleType name="IndicatorType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Standard"/>
    <xs:enumeration value="Centered"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **IndicatorType** simple type.

Value	Meaning
Standard	**Indicator bands** go from best to worst as values increase (or decrease).
Centered	**Indicator bands** go from best to worst as values get further away from the center.

2.2.5.32 KpiPattern

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies how **banding** and scoring change in appearance according to the setting of the KPI pattern.

```
<xs:simpleType name="KpiPattern" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="IncreasingIsBetter"/>
    <xs:enumeration value="DecreasingIsBetter"/>
    <xs:enumeration value="CloserToTargetIsBetter"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **KpiPattern** simple type.

Value	Meaning
IncreasingIsBetter	For banding and scoring, data that increases is better.
DecreasingIsBetter	For banding and scoring, data that decreases is better.
CloserToTargetIsBetter	For banding and scoring, data that is closer to the target is better.

2.2.5.33 LayoutOrientation

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type defines the layout of **items** within a DashboardElementContainer (see section 2.2.4.81).

```
<xs:simpleType name="LayoutOrientation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="HorizontalLeftJustified"/>
    <xs:enumeration value="HorizontalRightJustified"/>
    <xs:enumeration value="VerticalBottomJustified"/>
    <xs:enumeration value="VerticalTopJustified"/>
    <xs:enumeration value="Stacked"/>
```


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```
      <xs:enumeration value="Hidden"/>
    </xs:restriction>
  </xs:simpleType>
```

The following table specifies the allowable values for the **LayoutOrientation** simple type.

Value	Meaning
HorizontalLeftJustified	Horizontal layout where adjacent items are left-justified.
HorizontalRightJustified	Horizontal layout where adjacent items are right-justified.
VerticalBottomJustified	Vertical layout where adjacent items are bottom-justified.
VerticalTopJustified	Vertical layout where adjacent items are top-justified.
Stacked	Items are stacked so that only one item is visible at a time.
Hidden	Items are not displayed.

2.2.5.34 MappedColumnDataTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the data type of the mapped columns in DataColumnMapping (see section 2.2.4.84).

```
<xs:simpleType name="MappedColumnDataTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NotSupported"/>
    <xs:enumeration value="Number"/>
    <xs:enumeration value="String"/>
    <xs:enumeration value="DateTime"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **MappedColumnDataTypes** simple type.

Value	Meaning
NotSupported	Used when MappedColumnTypes is set to Ignore in DataColumnMapping.
Number	The mapped column values are numeric. Valid numeric values are short, integer, long, decimal and float.
String	The mapped column values are [UNICODE] characters.
DateTime	The mapped column values are date-time values.

2.2.5.35 MappedColumnTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

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This simple type specifies the classification of a mapped column in **DataColumnMapping** (see section 2.2.4.84).

```
<xs:simpleType name="MappedColumnTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Ignore"/>
    <xs:enumeration value="Fact"/>
    <xs:enumeration value="Dimension"/>
    <xs:enumeration value="TimeDimension"/>
    <xs:enumeration value="Key"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **MappedColumnTypes** simple type.

Value	Meaning
Ignore	The ignore type indicates that the mapped column in DataColumnMapping MUST be ignored.
Fact	The mapped column contains **fact** data. A fact column type MUST have an associated FactAggregations (see section 2.2.5.18).
Dimension	The mapped column contains **dimension** (see section 2.2.4.90) members.
TimeDimension	The mapped column contains time-based dimension members.
Key	The mapped column is the key column for columns mapped as Dimension (see section 2.2.4.90).

2.2.5.36 MemberRelationship

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the relationship among **dimension** members (see section 2.2.4.90). Member (see section 2.2.4.134) relationships are used in the context of a referred member.

```
<xs:simpleType name="MemberRelationship" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Parent"/>
    <xs:enumeration value="FirstSibling"/>
    <xs:enumeration value="PrevMember"/>
    <xs:enumeration value="NextMember"/>
    <xs:enumeration value="LastSibling"/>
    <xs:enumeration value="FirstChild"/>
    <xs:enumeration value="LastChild"/>
    <xs:enumeration value="CurrentMember"/>
    <xs:enumeration value="Children"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **MemberRelationship** simple type.

Value	Meaning
Parent	Parent of the referred dimension (section 2.2.4.90) **member (2)** (section 2.2.4.134).
FirstSibling	First **child** of the parent of the referred (section 2.2.4.90) member (2) (section 2.2.4.134).

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Value	Meaning
PrevMember	Previous member (2) at the same level that contains the referred dimension (section 2.2.4.90) member (2) (section 2.2.4.134).
NextMember	Next member (2) at the same level that contains the referred dimension (section 2.2.4.90) member (2) (section 2.2.4.134).
LastSibling	Last child of the parent of the referred dimension (section 2.2.4.90) member (2) (section 2.2.4.134).
FirstChild	First child of the parent of the referred dimension (section 2.2.4.90) member (2) (section 2.2.4.134).
LastChild	Last child of the referred dimension (section 2.2.4.90) member (2) (section 2.2.4.134).
CurrentMember	Current member (2) (section 2.2.4.134) along a specified dimension (section 2.2.4.90) or hierarchy (section 2.2.4.124) during iteration. When used in the context of a referred member (2) it implies the referred member (2) itself.
Children	Child members (2) of the referred dimension (section 2.2.4.90) member (section 2.2.4.134).

2.2.5.37 MemberTransformOperation

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the **transform** action that the **MemberTransform** (section 2.2.4.146) will use.

```
<xs:simpleType name="MemberTransformOperation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Replace"/>
    <xs:enumeration value="DrillUp"/>
    <xs:enumeration value="DrillDown"/>
    <xs:enumeration value="Expand"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **MemberTransformOperation** simple type.

Value	Meaning
Replace	Replaces a single hierarchy (section 2.2.4.124) group or all **members (2)** (section 2.2.4.134) from a KPI (section 2.2.4.128) with members (2) (section 2.2.4.134) provided by filters (section 2.2.4.98).
DrillUp	Drills up on a referred member (2) (section 2.2.4.134).
DrillDown	Drills down on a referred member (2) (section 2.2.4.134).
Expand	Dynamically expands the **child** members (2) of a referred member (2) (section 2.2.4.134).

2.2.5.38 MemberTransformType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the classification of the **MemberTransform** (section 2.2.4.146).

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```
<xs:simpleType name="MemberTransformType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Row"/>
    <xs:enumeration value="Column"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **MemberTransformType** simple type.

Value	Meaning
Row	The MemberTransform (section 2.2.4.146) will be applied to rows.
Column	The MemberTransform (section 2.2.4.146) will be applied to columns.

2.2.5.39 MemberType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies the type represented by the member (section 2.2.4.134) object.

```
<xs:simpleType name="MemberType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Regular"/>
    <xs:enumeration value="Operation"/>
    <xs:enumeration value="Default"/>
    <xs:enumeration value="Formula"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **MemberType** simple type.

Value	Meaning
Regular	A regular **member (2)** (section 2.2.4.134).
Operation	The member object represents a member operation (section 2.2.4.136).
Default	The member object represents the **default member** (section 2.2.4.134).
Formula	The member object represents a calculated member.

2.2.5.40 ReportLayout

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the way that row and column headers are displayed in a grid report.

```
<xs:simpleType name="ReportLayout" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="TabularForm"/>
    <xs:enumeration value="CompactForm"/>
  </xs:restriction>
```


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```
</xs:simpleType>
```

The following table specifies the allowable values for the **ReportLayout** simple type.

Value	Meaning
TabularForm	Row and column headers are flattened so that data is displayed in a space-efficient manner.
CompactForm	Row and column headers are displayed in an indented manner that reflects their hierarchical relationship.

2.2.5.41 RollupTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies the types of **rollup** behavior that can be exhibited by a target column in a **scorecard**.

```
<xs:simpleType name="RollupTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="AverageWeighted"/>
    <xs:enumeration value="WorstChild"/>
    <xs:enumeration value="IndicatorCount"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **RollupTypes** simple type.

Value	Meaning
None	Do not perform rollups.
AverageWeighted	Rollup a weighted average of the scores of the direct **child** members.
WorstChild	Rollup the worst score among the **descendants**.
IndicatorCount	Rollup a count of each state of each indicator found within the descendants, excluding those belonging to **objective KPIs**.

2.2.5.42 ScorecardEmptyRowsFilterMode

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies whether to display **scorecard** rows with empty cells. A scorecard **GridCell** (section 2.2.4.100) is considered empty if **DisplayElements** does not contain any **GridDisplayElements** (section 2.2.4.103) with a **Status** of 0, as specified in **GridCellElmentStatus** (section 2.2.5.25).

```
<xs:simpleType name="ScorecardEmptyRowsFilterMode"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
```


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```
      <xs:enumeration value="AllValuesAreEmpty"/>
    </xs:restriction>
  </xs:simpleType>
```

The following table specifies the allowable values for the **ScorecardEmptyRowsFilterMode** simple type.

Value	Meaning
None	Do not filter rows.
AllValuesAreEmpty	Filter out rows where all non-header cells are empty.

2.2.5.43 ScorecardNamedSetType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies how to define a set of **dimension members (2)**. It is used by **GridHeaderItem** (section 2.2.4.116) when the attribute **HeaderType** is set to "NamedSet", as specified in **ScorecardNodeTypes** (section 2.2.5.44).

```
<xs:simpleType name="ScorecardNamedSetType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="NamedSet"/>
        <xs:enumeration value="CustomFormula"/>
        <xs:enumeration value="TimeFormula"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **ScorecardNamedSetType** simple type.

Value	Meaning
None	**GridHeaderItem** (section 2.2.4.116) does not contain any dimension members (2) specified by a **named set**, a custom formula, or a **time intelligence** formula. A **GridHeaderItem** MUST NOT use this value if the **HeaderType** attribute is set to "NamedSet", as specified in **ScorecardNodeTypes** (section 2.2.5.44).
NamedSet	Dimension members (2) are specified by a named set.
CustomFormula	Dimension members (2) are specified by a custom formula.
TimeFormula	Dimension members (2) are specified by a time intelligence formula.

2.2.5.44 ScorecardNodeTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

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This simple type enumeration specifies the type of **scorecard** node header. This is used in the GridHeaderItem (section 2.2.4.116).

```
<xs:simpleType name="ScorecardNodeTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="Member"/>
        <xs:enumeration value="Kpi"/>
        <xs:enumeration value="KpiActual"/>
        <xs:enumeration value="KpiTarget"/>
        <xs:enumeration value="ScorecardDetails"/>
        <xs:enumeration value="DocumentLinks"/>
        <xs:enumeration value="NamedSet"/>
        <xs:enumeration value="Aggregate"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **ScorecardNodeTypes** simple type.

Value	Meaning
None	An unknown node type. This value SHOULD NOT be used except for the row and column root nodes. The behavior for this node type is unspecified.
Member	A **dimension** member node.
Kpi	A **KPI** node.
KpiActual	A KPI actual value node.
KpiTarget	A KPI target value node.
ScorecardDetails	Additional properties of scorecard elements node.
DocumentLinks	Document links of scorecard elements node.
NamedSet	A **named set** node.
Aggregate	An aggregation node.

2.2.5.45 ScoreTypes

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies the type of **score** to be used when rolling up the target column in a **scorecard**.

```
<xs:simpleType name="ScoreTypes" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Normalized"/>
    <xs:enumeration value="Raw"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ScoreTypes** simple type.

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Value	Meaning
Normalized	**Rollup** scores are determined using **child** scores **normalized** to a common scale.
Raw	Rollup scores are determined using the child scores without any conversion or normalization.

2.2.5.46 SizeType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies the size unit in **DashboardElementSize** (section 2.2.4.82).

```
<xs:simpleType name="SizeType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="AutoSize"/>
    <xs:enumeration value="Absolute"/>
    <xs:enumeration value="Percent"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **SizeType** simple type.

Value	Meaning
AutoSize	Auto sized based on internal content. Any related measurement value MUST be ignored if specified.
Absolute	Absolute value in **pixels**.
Percent	Percentage value relative to the container size. This value MUST NOT be less than 0 and MUST NOT be greater than 100.

2.2.5.47 SortType

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **SortType** simple type specifies the manner in which the values in a query result are sorted.

```
<xs:simpleType name="SortType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Off"/>
    <xs:enumeration value="ByIndex"/>
    <xs:enumeration value="ByTuple"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **SortType** simple type.

Value	Meaning
Off	No sort is applied.
ByIndex	Sort by column index.
ByTuple	Sort by value, which is specified by the measure in the tuple.

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2.2.5.48 SqlReportViewDataServerMode

Namespace: http://www.microsoft.com/performancepoint/scorecards

The SqlReportViewDataServerMode simple type indicates when SQL Server Reporting Services integrated into a SharePoint **server (1)**.

```
<xs:simpleType name="SqlReportViewDataServerMode"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="SharepointIntegrated"/>
    <xs:enumeration value="ReportCenter"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **SqlReportViewDataServerMode** simple type.

Value	Meaning
SharepointIntegrated	The SQL Reporting Services server (1) is integrated into SharePoint, allowing reports to be stored and rendered using SharePoint server (1).
ReportCenter	SQL Reports are stored and rendered using a SQL Server Reporting Services server (1).

2.2.5.49 StrategyMapToolbarOptions

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **StrategyMapToolbarOptions** simple type specifies the view options for a **strategy map** report.

```
<xs:simpleType name="StrategyMapToolbarOptions" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="ShowToolbar"/>
        <xs:enumeration value="ShowPage"/>
        <xs:enumeration value="ShowScrollbars"/>
        <xs:enumeration value="ShowPageTabs"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **StrategyMapToolbarOptions** simple type.

Value	Meaning
None	No options are specified.
ShowToolbar	The toolbar is displayed.
ShowPage	The drawing page is displayed.

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Value	Meaning
ShowScrollbars	The scrollbars are displayed.
ShowPageTabs	The page tabs are displayed.

2.2.5.50 Trinary

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type specifies an enumeration type that has three possible values.

```
<xs:simpleType name="Trinary" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Undefined"/>
    <xs:enumeration value="False"/>
    <xs:enumeration value="True"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **Trinary** simple type.

Value	Meaning
Undefined	Not Defined.
False	Specified as False.
True	Specified as True.

2.2.5.51 ValueSources

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies how **rollup** values are computed. The enumeration determines how values for parent scorecard row **items** will be computed from the values of **child** scorecard row items within the same scorecard column.

```
<xs:simpleType name="ValueSources" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Default"/>
    <xs:enumeration value="NoValue"/>
    <xs:enumeration value="SourceData"/>
    <xs:enumeration value="Text"/>
    <xs:enumeration value="AverageRollup"/>
    <xs:enumeration value="MinRollup"/>
    <xs:enumeration value="MaxRollup"/>
    <xs:enumeration value="TotalRollup"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ValueSources** simple type.

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Value	Meaning
Default	Use default settings: If there are child **members (2)**, the **average weighted value** of child objects MUST be used; otherwise, when there are no child objects, SourceData value MUST be used.
NoValue	Don’t compute or show values.
SourceData	No rollup, query source data.
Text	Text value of source data.
AverageRollup	Mathematical average value of child objects.
MinRollup	Minimum value of child objects.
MaxRollup	Maximum value of child objects.
TotalRollup	Total, summed, value of child objects.

2.2.5.52 VarianceDisplayType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies how a **variance** value is calculated and presented.

```
<xs:simpleType name="VarianceDisplayType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="ShowPercent"/>
    <xs:enumeration value="ShowValue"/>
    <xs:enumeration value="ShowInvertedPercent"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **VarianceDisplayType** simple type.

Value	Meaning
ShowPercent	Show **variance** value as the percentage variance between a target (section 2.2.4.170) value and its associated actual value.
ShowValue	Show the **variance** value as the difference between a target (section 2.2.4.170) value and its associated actual value.
ShowInvertedPercent	Show the **variance** value as the inverted percentage variance between a target (section 2.2.4.170) value and its associated actual value.

2.2.5.53 VarianceType

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simple type enumeration specifies how a **variance** calculation uses **indicator status band** and target values.

```
<xs:simpleType name="VarianceType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
```


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```
  <xs:restriction base="xs:string">
    <xs:enumeration value="VarianceToTarget"/>
    <xs:enumeration value="VarianceToBestTarget"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **VarianceType** simple type.

Value	Meaning
VarianceToTarget	Show the **variance** value as the inverted percentage variance between a target (section 2.2.4.170) value and its associated actual value.
VarianceToBestTarget	Calculate value as the **variance** between the actual value and a computed target (section 2.2.4.170) value. The computed target (section 2.2.4.170) value takes into account the nearest threshold of the best **indicator status band**. See the **Banding** complex type (section 2.2.4.60) for more information about bands.

2.2.5.54 VerticalAlignments

Namespace: http://www.microsoft.com/performancepoint/scorecards

This simply type enumeration specifies a vertical alignment of content within a grid **cell** or display element.

```
<xs:simpleType name="VerticalAlignments" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Undefined"/>
    <xs:enumeration value="Top"/>
    <xs:enumeration value="Middle"/>
    <xs:enumeration value="Bottom"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **VerticalAlignments** simple type.

Value	Meaning
Undefined	Vertical alignment is undefined.
Top	Align at the top.
Middle	Align at the middle.
Bottom	Align at the bottom.

2.2.6 Attributes

This specification does not define any common **XML schema** attribute definitions.

2.2.7 Groups

This specification does not define any common **XML schema** group definitions.

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2.2.8 Attribute Groups

This specification does not define any common **XML schema** attribute group definitions.

2.2.9 Common Data Structures

This specification does not define any common **XML schema** data structures.

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3 Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

Except where specified, protocol clients SHOULD interpret **HTTP** status codes returned by the **server (2)** as specified in [RFC2616] section 10, Status Code Definitions).

This protocol allows servers (2) to notify protocol clients of application-level faults using **SOAP faults**. Except where specified, these SOAP faults are not significant for interoperability, and protocol clients can interpret them in an implementation-specific manner.

This protocol allows servers (2) to perform implementation-specific authorization checks and notify protocol clients of authorization faults either using HTTP status codes or using SOAP faults as specified previously in this section.

Occasionally, instances occur where this web service's **WSDL** specifies optionality (for example, minOccurs="0" and maxOccurs="1") that conflicts with the stated behavior in this document, or the document doesn't contain the stated behavior. In such cases, where the document and the WSDL conflict, the document takes precedence. In cases where the document doesn't specify optionality, the argument has to be present, even if the WSDL specifies that the argument is optional (for example, minOccurs="0").

In cases where an argument is optional and the WSDL specifies both "minOccurs=0" and "Nillable=true", treat the argument as only "minOccurs=0".

3.1 Server Details

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

The **server (2)** maintains a collection of first-class elements indexed by unique repository locations. Each first-class element can be independently published to and read from the server (2). Each first-class element references its dependents by their unique repository locations. The following **UML** diagram describes how the first-class elements are related:

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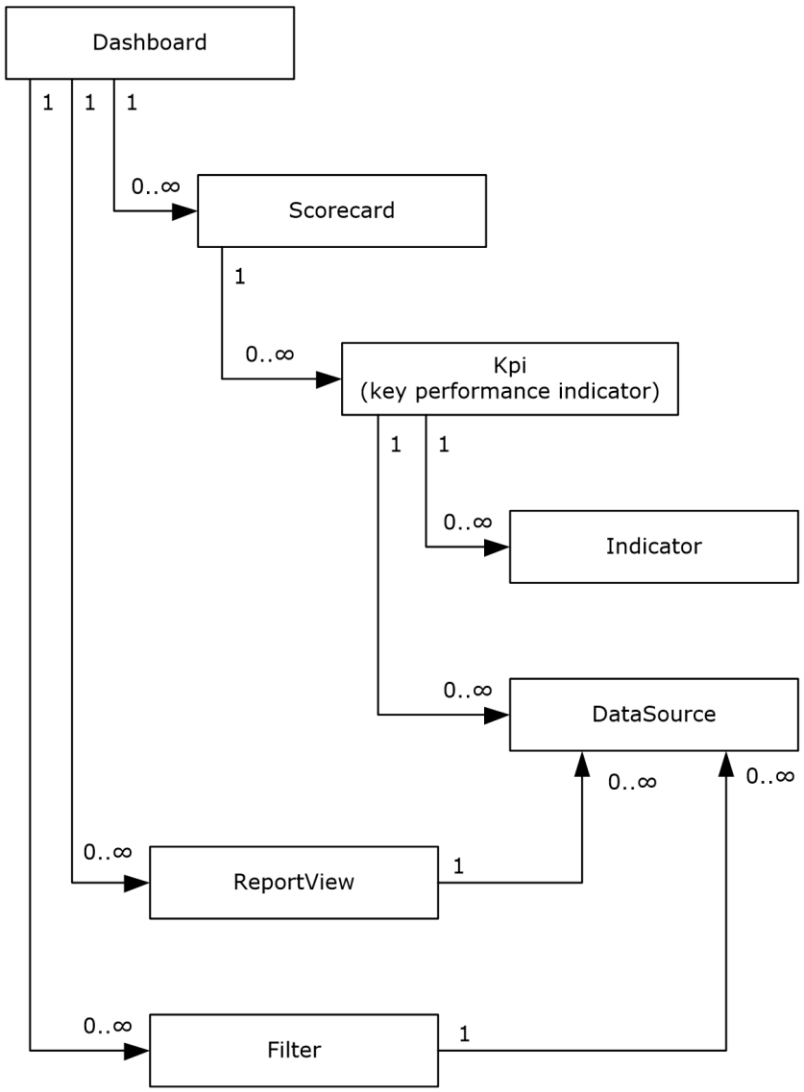


Figure 6: Overview of first-class elements

A first-class element's dependents are published prior to that first-class element being consumed on the server (2). For example, all the first-class elements that a **dashboard** is dependent on are published prior to that dashboard being deployed or viewed.

The following classes are defined as first-class elements:

Dashboard: A customizable landing page for a business application or workspace that uses **Web Parts** to display selected information. It can provide a comprehensive look at the information inside the application or workspace by consolidating lists (1), libraries, text, images and other data into a dynamic, customizable information portal.

Each Web Part on a dashboard displays the information specified by a single first-class element.

The Filters, Reports, and Scorecards in a Dashboard can be connected together so that changes in the state of one first-class element will change the information displayed by other first-class elements. For example, a Filter can be connected to Report Views or Scorecards so that changes to the selections made in the Filter are reflected in the information shown by those Report Views and Scorecards.

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When Filters, Reports, and Scorecards are connected in a Dashboard, each connection has an explicit source and a destination. State information in a dashboard always flows from a connection source or begin point in one first-class element to a connection destination or endpoint in another first-class element. Filters, Reports, and Scorecards can each have multiple begin points and endpoints. A connection is fully defined by a source element, a begin point on that element, a destination element and an endpoint on that element. For example, the member name begin point on a Filter could be connected to the row endpoint on a Scorecard.

There are limitations on the way different first-class element can be connected in a Dashboard:

First-class element	Can be a source?	Can be a destination?
Filter	Yes	No
Report View	No	Yes
Scorecard	Yes	Yes

- The connection cannot create a circular reference; a user cannot connect a scorecard to a filter that is already linked to the scorecard.
- A begin point is available if:
  - It is not already connected to another begin point or it is connected but its AcceptMultipleFilterLinks property is set to true.
  - It is not already connected to the begin point. If the dashboard item is a scorecard it can accept multiple connections from the same begin point.
- Unless the target item is a scorecard a user cannot make multiple connections from a begin point to a target.
- Although a scorecard can accept multiple connections from the same begin point, those connections cannot be to the same end point on the scorecard. In other words, a user can connect a filter to a scorecard's Row end point and its Column end point, but a user cannot connect a begin point to a scorecard's Row end point twice.

Scorecard: A report type that depicts organizational performance by displaying a collection of key performance indicators (KPIs) together with performance targets for those KPIs. A scorecard can be organized hierarchically.

ReportView: A visual display of data in a dashboard that can be coordinated with other **report views** by using filters.

Filter: A feature that enables users to modify dashboard views by changing the subset of data that is displayed in reports or scorecards.

KPI (key performance indicator): A predefined measure that is used to track performance of a strategic goal, objective, plan, initiative, or business process. A KPI is evaluated against a target. An explicit and measurable value taken directly from a data source.

Indicator: A set of graphics, text, and colors for defining different levels of performance when comparing an actual value and a target value within a KPI.

DataSource: A reference to a disk, file, document, or other collection of information from which data is taken or moved.

The server (2) also maintains a collection of annotations.

Annotation: One of possibly several notations associated with a comment. Each comment is associated with a single **cell** in a scorecard and meant to provide related information about the value in that scorecard cell.

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3.1.2 Timers

If a request exceeds a query timeout period, the **server (2)** MUST return a **SOAP fault** response, which MUST contain the **Query Timeout**<22> **ErrorCode** as specified in section 2.2.2.1.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This section specifies the **server (2)** operations.

The following table summarizes the list of operations as defined by this specification.

Operation	Description
CreateAnnotation	The **CreateAnnotation** operation is used to create an **Annotation** complex type (section 2.2.4.18) on the server (2).
CreateDashboard	The **CreateDashboard** operation is used to create a **Dashboard** complex type (section 2.2.4.79) on the server (2).
CreateDataSource	The **CreateDataSource** operation is used to create a **DataSource** complex type (section 2.2.4.85) on the server (2).
CreateFilter	The **CreateFilter** operation is used to create a **Filter** complex type (section 2.2.4.98) on the server (2).
CreateIndicator	The **CreateIndicator** operation is used to create an **Indicator** complex type (section 2.2.4.125) on the server (2).
CreateKpi	The **CreateKpi** operation is used to create a **Kpi** complex type (section 2.2.4.128) on the server (2).
CreateReportView	The **CreateReportView** operation creates a **ReportView** complex type (section 2.2.4.160) on the server (2).
CreateScorecard	The **CreateScorecard** operation creates a **Scorecard** complex type (section 2.2.4.162) on the server (2).
DeleteAnnotation	The **DeleteAnnotation** operation deletes an **Annotation** complex type (section 2.2.4.18) from the server (2).
DeleteDashboard	The **DeleteDashboard** operation deletes a **Dashboard** complex type (section 2.2.4.79) from the server (2).
DeleteDataSource	The **DeleteDataSource** operation deletes a **DataSource** complex type (section 2.2.4.85) from the server (2).
DeleteFilter	The **DeleteFilter** operation deletes a **Filter** complex type (section 2.2.4.98) from the server (2).
DeleteIndicator	The **DeleteIndicator** operation deletes an **Indicator** complex type (section 2.2.4.125) from the server (2).
DeleteKpi	The **DeleteKpi** operation deletes a **Kpi** complex type

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Operation	Description
	(section 2.2.4.128) from the server (2).
DeleteReportView	The **DeleteReportView** operation deletes a **ReportView** complex type (section 2.2.4.160) from the server (2).
DeleteScorecard	The **DeleteScorecard** operation deletes a **Scorecard** complex type (section 2.2.4.162) from the server (2).
ExportDashboard	The **ExportDashboard** operation<23> is used to export **dashboard** pages and their associated content from the server (2) into a specified Deployment Package ([MS-PRIMEPF]).
GenerateView	The **GenerateView** operation generates the data structure that represents a **scorecard** grid view, the **GridViewData** complex type (section 2.2.4.121), based on information stored on the server (2).
GenerateViewDirect	The **GenerateViewDirect** operation generates the data structure that represents a scorecard grid view (see **GridViewData** complex type, section 2.2.4.121), using information sent from the client.
GetAllAnnotationsByScorecardLocation	The **GetAllAnnotationsByScorecardLocation** operation retrieves an array of **Annotation** complex type elements (section 2.2.4.18) associated with a scorecard.
GetAnalyticReportView	The **GetAnalyticReportView** operation retrieves a **report view** from the server (2) that has been created through the **SaveTemporaryAnalyticReport** (section 3.1.4.65) or **CreateReportView** (section 3.1.4.7) operation.
GetAnnotation	The **GetAnnotation** operation retrieves an **Annotation** complex type (section 2.2.4.18) associated with a scorecard **cell** from the server (2).
GetAnnotationByID	The **GetAnnotationByID** operation retrieves an **Annotation** complex type (section 2.2.4.18) from a specified **GUID** from the server (2).
GetAnnotationSetting	The **Attribute Groups** operation retrieves an **AnnotationSetting** complex type object (section 3.1.4.24.3.1) that contains the annotation settings for the server (2).
GetAsKpis	The **GetAsKpis** operation takes in an **Analysis Services** data source along with a **server-relative URL** to a **Kpi** complex type (section 2.2.4.128) **list (1)**, and returns a collection of **Kpis** as defined in the **ArrayOfKpi** complex type (see section 2.2.4.41).
GetCube	The **GetCube** operation takes in a **RepositoryLocation** complex type object (section 2.2.4.161), and returns the associated **Cube** complex type object (section 2.2.4.78).
GetCubeFromDataSource	The **GetCubeFromDataSource** operation takes in a data source object and returns the associated **Cube** complex type object section 2.2.4.78().
GetCubeMetaData	The **GetCubeMetaData** operation takes in an Analysis Services **RepositoryLocation** complex type object (section 2.2.4.161) and returns the associated **Cube**

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Operation	Description
	complex type object (section 2.2.4.78).
GetCubeMetaDataForDataSource	The **GetCubeMetaDataForDataSource** operation takes in an Analysis Services data source object and returns the associated **Cube** complex type object (section 2.2.4.78). This operation is valid for Analysis Services data sources only.
GetCubeNameInfos	The **GetCubeNameInfos** operation retrieves an **ArraryOfNameInfo** complex type (section 2.2.4.48) that describes the **cubes** of the **data source (1)**.
GetCurrentCultureLcid	The **GetCurrentCulturLcid** operation retrieves the current culture locale identifier.
GetCurrentUserInfo	The **GetCurrentUserInfo** operation retrieves the user name and display name information of the **current user**.
GetDashboard	The **GetDashboard** operation retrieves a dashboard.
GetDatabaseNamesFromDataSource	The **GetDatabaseNamesFromDataSource** operation retrieves an array of database names associated with the data source (1).
GetDataSource	The **GetDataSource** operation retrieves a data source (1).
GetDependentElements	The **GetDependentElements** operation retrieves from the server (2) all **FirstClassElement** complex types (section 2.2.4.99) associated with a list (1) of repository locations. In addition, all **FirstClassElements** that are related by reference are also included in the response. For example, for a requested scorecard, all **Kpis**, **Indicators**, and **DataSources** that the scorecard depends on will also be retrieved.
GetDimensions	The **GetDimensions** operation retrieves an array of **dimension** objects.
GetDimensionsFromDataSource	The **GetDimensionsFromDataSource** operation retrieves an array of dimension objects (see section 2.2.4.90).
GetFilter	The **GetFilter** operation retrieves a **Filter** complex type (section 2.2.4.98).
GetIndicator	The **GetIndicator** operation retrieves an **Indicator** complex type (section 2.2.4.125) from the server (2).
GetKpi	The **GetKpi** operation retrieves a **Kpi** complex type object (section 2.2.4.128).
GetKpisFromScorecard	The **GetKpisFromScorecard** operation retrieves an array of **Kpi** complex type objects (section 2.2.4.128) associated with a scorecard.
GetLatestAnalyticReportVersion	The **GetLatestAnalyticReportVersion** operation retrieves from the server (2) the version number for a report view that has been created through **SaveTemporaryAnalyticReport** operation (section 3.1.4.65).
GetListItems	The **GetListItems** operation retrieves all

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Operation	Description
	FirstClassElements complex types (section 2.2.4.99) associated with a given repository list (1) from the server (2).
GetMdx	The **GetMdx** operation retrieves an **MDX** that can be used to query data sources for the given analytic report. The Analytic Chart and Analytic Grid report view types contain custom data that is used to generate MDX queries. See the **ReportView** complex type (section 2.2.4.160) for more detail.
GetParameterDisplayData	The **GetParameterDisplayData** operation builds a template data table containing only the columns produced by a specific parameter type. The referred parameter represents a specific kind of connection between two **Web Parts**. The resulting **DataTable** (as described in [DataTable]) represents an empty sample of the information that gets passed on that connection.
GetPreviewDataSet	The **GetPreviewDataSet** method retrieves a data set from a data source, which is suitable for previewing results.
GetQueryResultMembers	The **GetQueryResultMembers** operation retrieves an array of **members (2)** associated with the specified **report**.
GetRegisteredCustomFCOs	The **GetRegisteredCustomFCOs** operation retrieves custom object definitions registered on the server (2).
GetReportView	The **GetReportView** operation retrieves a **ReportView** complex type (section 2.2.4.160) from the server (2).
GetScorecard	The **GetScorecard** operation retrieves a **Scorecard** complex type (section 2.2.4.162).
ImportDashboard	The **ImportDashboard** operation<24> is used to import content from a specified Deployment Package ([MS-PRIMEPF]) to the server (2).
QueryChildMembers	The **QueryChildMembers** operation uses a data source for the specified member, and returns a collection of members.
QueryChildMembersByRangeFromDataSource	The **QueryChildMembersByRangeFromDataSource** operation queries the **DataSource** complex type (section 2.2.4.85), and returns a collection of **child** members.
QueryChildMembersFromDataSource	The **QueryChildMembersFromDataSource** operation uses the data source to retrieve a collection of child members for the specified member name.
QueryDimensionRootMembers	The **QueryDimensionRootMembers** operation uses a data source (1) from the repository location for the specified member, and returns a collection of root members.
QueryDimensionRootMembersFromDataSource	The **QueryDimensionRootMemebersFromDataSource** method uses the data source to retrieve a collection of root members for the specified member name.
QueryNamedSets	The **QueryNamedSets** operation is used to retrieve the **named sets** that are defined by a data source (1) when

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Operation	Description
	given the **RepositoryLocation** complex type (section 2.2.4.161) of the data source (1).
QueryNamedSetsFromDataSource	The **QueryNamedSetsFromDataSource** operation is used to retrieve the named sets that are defined by the given data source (1).
QueryRelatedMember	The **QueryRelatedMember** operation is used to retrieve a member (2) having the specified relationship to the specified member from the data source (1) at the given **RepositoryLocation** complex type (section 2.2.4.161).
QueryRelatedMemberFromDataSource	The **QueryRelatedMemberFromDataSource** operation queries the given data source (1) for the member (2) having the specified relationship to the specified member.
QueryTimeIntelligence	The **QueryTimeIntelligence** operation queries a data source (1) location for the members (2) that are specified by a **time intelligence** formula.
QueryTimeIntelligenceDirect	The **QueryTimeIntelligenceDirect** operation queries the provided data source (1) for the members (2) that are specified by a time intelligence formula.
QueryTransformMembers	The **QueryTransformMembers** method **transforms** any collection of **Member** complex types (section 2.2.4.134) into a new member collection based on the operation passed on the **transformType** parameter of the **QueryTransformMembers** element (section 3.1.4.64.2.1) as specified in section 3.1.4.64.4.1.
SaveTemporaryAnalyticReport	The **SaveTemporaryAnalyticReport** operation stores a temporary copy of a **ReportView** complex type (section 2.2.4.160) to the server (2).
TestConnection	The **TestConnection** operation is used to determine whether a connection as specified by the **dataSource** element can be established.
TrimAnnotationByOwner	The **TrimAnnotationByOwner** operation removes all the **Annotation** complex types (section 2.2.4.18) that are owned by a specific user.
TrimAnnotationByScorecardLocation	The **TrimAnnotationByScorecardLocation** operation removes all the annotations that belong to a scorecard at a specific location.
TrimAnnotationUntouchedSince	The **TrimAnnotationUntouchedSince** operation removes all the **Annotation** complex types (section 2.2.4.18) that haven't been updated since the specified date.
UpdateAnnotation	The **UpdateAnnotation** operation updates an existing **Annotation** complex type (section 2.2.4.18).
UpdateDashboard	The **UpdateDashboard** operation updates an existing **Dashboard** complex type (section 2.2.4.79).
UpdateDataSource	The **UpdateDataSource** operation updates an existing **DataSource** complex type (section 2.2.4.85).
UpdateFilter	The **UpdateFilter** operation is used to update the existing **filter** as specified by the **Filter** complex type object (section 2.2.4.98) in the **UpdateFilter** input element

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Operation	Description
	(section 3.1.4.73.2.1).
UpdateIndicator	The **UpdateIndicator** operation is used to update the existing **Indicator** as specified by the **Indicator** complex type object (section 2.2.4.125) in the **UpdateIndicator** input element (section 3.1.4.74.2.1).
UpdateKpi	The **UpdateKpi** operation is used to update the existing **KPI** as specified by the **Kpi** complex type object (section 2.2.4.128) in the **UpdateKpi** input element (section 3.1.4.75.2.1).
UpdateReportView	The **UpdateReportView** operation is used to update the existing report view as specified by the **ReportView** complex type object (section 2.2.4.160) in the **UpdateReportView** input element (section 3.1.4.76.2.1).
UpdateScorecard	The **UpdateScorecard** operation is used to update the existing scorecard as specified by the **Scorecard** complex type object (section 2.2.4.162) in the **UpdateScorecard** input element (section 3.1.4.77.2.1).
ValidateKpi	The **ValidateKpi** operation checks whether a KPI stored on the server (2) is valid.
ValidateScorecard	The **ValidateScorecard** operation checks if a scorecard stored on the server (2) is valid.
ValidateSiteCollection	The **ValidateSiteCollection** operation is used to check if the **context site** has the server (2) feature installed.

3.1.4.1 CreateAnnotation

The **CreateAnnotation** operation is used to create an **Annotation** complex type (section 2.2.4.18) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateAnnotation WSDL operation**.

```
<wsdl:operation name="CreateAnnotation" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateAnnotationSoapIn"/>
  <wsdl:output message="tns:CreateAnnotationSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateAnnotationSoapIn** request message (section 3.1.4.1.1.1), and the server (2) responds with a **CreateAnnotationSoapOut** response message (section 3.1.4.1.1.2) as follows:

- The protocol client MUST send the **Annotation** to be created.
- The server (2) MUST create the specified **Annotation** in the database.
- If creation is successful, the server (2) MUST return the created **Annotation** whose following fields are updated:
  - CreatedOn
  - Guid
  - LastUpdatedOn

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Exceptions:

ErrorCode	Description
AnnotationNotEnabled	See Full List of Possible Error Codes (section 2.2.2.1.2).
InvalidAnnotation	See Full List of Possible Error Codes (section 2.2.2.1.2).
InvalidComment	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the **ErrorCode** MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.1.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateAnnotationSoapIn	The request WSDL message for the **CreateAnnotation** **WSDL operation**.
CreateAnnotationSoapOut	The response WSDL message for the **CreateAnnotation** WSDL operation.

3.1.4.1.1.1 CreateAnnotationSoapIn

The request **WSDL message** for the **CreateAnnotation** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateAnnotation
```

The **SOAP body** contains the **CreateAnnotation** element.

3.1.4.1.1.2 CreateAnnotationSoapOut

The response **WSDL message** for the **CreateAnnotation** **WSDL operation**.

The **SOAP body** contains the **CreateAnnotationResponse** element.

3.1.4.1.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateAnnotation	The input data for the **CreateAnnotation** **WSDL operation**.
CreateAnnotationResponse	The result data for the **CreateAnnotation** WSDL operation.

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3.1.4.1.2.1 CreateAnnotation

The **CreateAnnotation** element specifies the input data for the **CreateAnnotation** **WSDL operation**.

```
<xs:element name="CreateAnnotation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="annotation" type="tns:Annotation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

annotation: The **Annotation** complex type (section 2.2.4.18) to be created on the **server (2)**. This element MUST be present.

3.1.4.1.2.2 CreateAnnotationResponse

The **CreateAnnotationResponse** element specifies the result data for the **CreateAnnotation** **WSDL operation**.

```
<xs:element name="CreateAnnotationResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateAnnotationResult"
type="tns:Annotation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateAnnotationResult: The **Annotation** complex type (section 2.2.4.18) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.1.

3.1.4.1.3 Complex Types

None.

3.1.4.1.4 Simple Types

None.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

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3.1.4.2 CreateDashboard

The **CreateDashboard** operation is used to create a **Dashboard** complex type (section 2.2.4.79) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateDashboard WSDL operation**.

```
<wsdl:operation name="CreateDashboard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateDashboardSoapIn"/>
  <wsdl:output message="tns:CreateDashboardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateDashboardSoapIn** request message (section 3.1.4.2.1.1), and the server (2) responds with a **CreateDashboardSoapOut** response message (section 3.1.4.2.1.2) as follows:

- The protocol client MUST send the **Dashboard** and its target location on the server (2).
- The server (2) MUST create the specified **Dashboard** at the specified server (2) location.
- If creation is successful, the server (2) MUST return the created **Dashboard** with the following fields set, as specified in the **FirstClassElement** complex type (section 2.2.4.99):
  - Location
  - CreatedBy
  - ModifiedBy
  - CreatedDate
  - LastModified
  - Version

Exceptions:

ErrorCode	Description
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

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In case of any other failure, the **ErrorCode** MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.2.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateDashboardSoapIn	The request WSDL message for the **CreateDashboard** **WSDL operation**.
CreateDashboardSoapOut	The response WSDL message for the **CreateDashboard** WSDL operation.

3.1.4.2.1.1 CreateDashboardSoapIn

The request **WSDL message** for the **CreateDashboard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateDashboard
```

The **SOAP body** contains the **CreateDashboard** element.

3.1.4.2.1.2 CreateDashboardSoapOut

The response **WSDL message** for the **CreateDashboard** **WSDL operation**.

The **SOAP body** contains the **CreateDashboardResponse** element.

3.1.4.2.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateDashboard	The input data for the **CreateDashboard** **WSDL operation**.
CreateDashboardResponse	The result data for the **CreateDashboard** WSDL operation.

3.1.4.2.2.1 CreateDashboard

The **CreateDashboard** element specifies the input data for the **CreateDashboard** **WSDL operation**.

```
<xs:element name="CreateDashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>

      <xs:element minOccurs="0" maxOccurs="1" name="dashboard" type="tns:Dashboard"/>
    </xs:sequence>
  </xs:complexType>
```


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```
</xs:element>
```

listUrl: The location on the **server (2)** where the **dashboard** is created. This element MUST be present. It MUST be a valid **URL** as specified in [RFC1738] and MUST be a valid **subsite** on the server (2).

dashboard: The **Dashboard** complex type (section 2.2.4.79) to be created on the server (2). This element MUST be present.

3.1.4.2.2.2 CreateDashboardResponse

The **CreateDashboardResponse** element specifies the result data for the **CreateDashboard WSDL operation**.

```
<xs:element name="CreateDashboardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateDashboardResult"
type="tns:Dashboard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateDashboardResult: The **Dashboard** complex type (section 2.2.4.79) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.2.

3.1.4.2.3 Complex Types

None.

3.1.4.2.4 Simple Types

None.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

3.1.4.3 CreateDataSource

The **CreateDataSource** operation is used to create a **DataSource** complex type (section 2.2.4.85) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateDataSource WSDL operation**.

```
<wsdl:operation name="CreateDataSource" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateDataSourceSoapIn"/>
  <wsdl:output message="tns:CreateDataSourceSoapOut"/>
```


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```
</wsdl:operation>
```

The protocol client sends a **CreateDataSourceSoapIn** request message (section 3.1.4.3.1.1), and the server (2) responds with a **CreateDataSourceSoapOut** response message (section 3.1.4.3.1.2) as follows:

- The protocol client MUST send the **DataSource** and its target location on the server (2).
- The server (2) MUST create the specified **DataSource** at the specified server (2) location.
- If creation is successful, the server (2) MUST return the created **DataSource** with the following fields set as specified in the **FirstClassElement** complex type (section 2.2.4.99):
- Location
- CreatedBy
- ModifiedBy
- CreatedDate
- LastModified
- Version

Exceptions:

Error code	Description
InvalidDataSource	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

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3.1.4.3.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateDataSourceSoapIn	The request WSDL message for the **CreateDataSource** **WSDL operation**.
CreateDataSourceSoapOut	The response WSDL message for the **CreateDataSource** WSDL operation.

3.1.4.3.1.1 CreateDataSourceSoapIn

The request **WSDL message** for the **CreateDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateDataSource
```

The **SOAP body** contains the **CreateDataSource** element.

3.1.4.3.1.2 CreateDataSourceSoapOut

The response **WSDL message** for the **CreateDataSource** **WSDL operation**.

The **SOAP body** contains the **CreateDataSourceResponse** element.

3.1.4.3.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateDataSource	The input data for the **CreateDataSource** **WSDL operation**.
CreateDataSourceResponse	The result data for the **CreateDataSource** WSDL operation.

3.1.4.3.2.1 CreateDataSource

The **CreateDataSource** element specifies the input data for the **CreateDataSource** **WSDL operation**.

```
<xs:element name="CreateDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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listUrl: The location on the **server (2)** where the **DataSource** complex type (section 2.2.4.85) is to be created. This element MUST be present. It MUST be a valid relative **URL** as specified in [RFC1808] and MUST be a **site (2)** on the server (2).

dataSource: The **DataSource** to be created on the server (2). This element MUST be present.

3.1.4.3.2.2 CreateDataSourceResponse

The **CreateDataSourceResponse** element specifies the result data for the **CreateDataSource WSDL operation**.

```
<xs:element name="CreateDataSourceResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateDataSourceResult"
type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateDataSourceResult: The **DataSource** complex type (section 2.2.4.85) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.3.

3.1.4.3.3 Complex Types

None.

3.1.4.3.4 Simple Types

None.

3.1.4.3.5 Attributes

None.

3.1.4.3.6 Groups

None.

3.1.4.3.7 Attribute Groups

None.

3.1.4.4 CreateFilter

The **CreateFilter** operation is used to create a **Filter** complex type (section 2.2.4.98) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateFilter WSDL operation**.

```
<wsdl:operation name="CreateFilter" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateFilterSoapIn"/>
  <wsdl:output message="tns:CreateFilterSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateFilterSoapIn** request message (section 3.1.4.4.1.1), and the server (2) responds with a **CreateFilterSoapOut** response message (section 3.1.4.4.1.2) as follows:

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- The protocol client MUST send the **Filter** and its **target** location on the server (2).
- The server (2) MUST create the specified **Filter** at the specified server (2) location.
- If creation is successful, the server (2) MUST return the created Filter with the following fields set as specified in the **FirstClassElement** complex type (section 2.2.4.99):
  - CreatedBy
  - CreatedDate
  - LastModified
  - Location
  - ModifiedBy
  - Version

Exceptions:

Error code	Description
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.4.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateFilterSoapIn	The request WSDL message for the **CreateFilter** **WSDL operation**.
CreateFilterSoapOut	The response WSDL message for the **CreateFilter** WSDL operation.

3.1.4.4.1.1 CreateFilterSoapIn

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The request **WSDL message** for the **CreateFilter** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateFilter
```

The **SOAP body** contains the **CreateFilter** element.

3.1.4.4.1.2 CreateFilterSoapOut

The response **WSDL message** for the **CreateFilter** **WSDL operation**.

The **SOAP body** contains the **CreateFilterResponse** element.

3.1.4.4.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateFilter	The input data for the **CreateFilter** **WSDL operation**.
CreateFilterResponse	The result data for the **CreateFilter** WSDL operation.

3.1.4.4.2.1 CreateFilter

The **CreateFilter** element specifies the input data for the **CreateFilter** **WSDL operation**.

```
<xs:element name="CreateFilter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="filter" type="tns:Filter"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

listUrl: The location on the **server (2)** where the **Filter** complex type (section 2.2.4.98) is to be created. This element MUST be present. It MUST be a valid relative **URL**, as specified in [RFC1808] and MUST be a valid **site (2)** on the server (2).

filter: The Filter to be created on the server (2). This element MUST be present.

3.1.4.4.2.2 CreateFilterResponse

The **CreateFilterResponse** element specifies the result data for the **CreateFilter** **WSDL operation**.

```
<xs:element name="CreateFilterResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateFilterResult" type="tns:Filter"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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CreateFilterResult: The **Filter** complex type (section 2.2.4.98) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.4.

3.1.4.4.3 Complex Types

None.

3.1.4.4.4 Simple Types

None.

3.1.4.4.5 Attributes

None.

3.1.4.4.6 Groups

None.

3.1.4.4.7 Attribute Groups

None.

3.1.4.5 CreateIndicator

The **CreateIndicator** operation is used to create an **Indicator** complex type (section 2.2.4.125) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateIndicator WSDL operation**.

```
<wsdl:operation name="CreateIndicator" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateIndicatorSoapIn"/>
  <wsdl:output message="tns:CreateIndicatorSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateIndicatorSoapIn** request message (section 3.1.4.5.1.1), and the server (2) responds with a **CreateIndicatorSoapOut** response message (section 3.1.4.5.1.2) as follows:

- The protocol client MUST send the **Indicator** and its target location on the server (2).
- The server (2) MUST create the specified **Indicator** at the specified server (2) location.
- If creation is successful, the server (2) MUST return the created **Indicator** with the following fields set as specified in the **FirstClassElement** complex type (section 2.2.4.99):
  - Location
  - CreatedBy
  - ModifiedBy
  - CreatedDate
  - LastModified
  - Version

Exceptions:

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Error code	Description
InvalidIndicator	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.5.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateIndicatorSoapIn	The request WSDL message for the **CreateIndicator** **WSDL operation**.
CreateIndicatorSoapOut	The response WSDL message for the **CreateIndicator** WSDL operation.

3.1.4.5.1.1 CreateIndicatorSoapIn

The request **WSDL message** for the **CreateIndicator** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateIndicator
```

The **SOAP body** contains the **CreateIndicator** element.

3.1.4.5.1.2 CreateIndicatorSoapOut

The response **WSDL message** for the **CreateIndicator** **WSDL operation**.

The **SOAP body** contains the **CreateIndicatorResponse** element.

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3.1.4.5.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateIndicator	The input data for the **CreateIndicator** **WSDL operation**.
CreateIndicatorResponse	The result data for the **CreateIndicator** WSDL operation.

3.1.4.5.2.1 CreateIndicator

The **CreateIndicator** element specifies the input data for the **CreateIndicator** **WSDL operation**.

```
<xs:element name="CreateIndicator" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="indicator" type="tns:Indicator"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

listUrl: The location on the **server (2)** where the **Indicator** complex type (section 2.2.4.125) is to be created. This element MUST be present. It MUST be a valid relative **URL** as specified in [RFC1808] and MUST be a valid **site (2)** on the server (2).

indicator: The **Indicator** to be created on the server (2). MUST be present.

3.1.4.5.2.2 CreateIndicatorResponse

The **CreateIndicatorResponse** element specifies the result data for the **CreateIndicator** **WSDL operation**.

```
<xs:element name="CreateIndicatorResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateIndicatorResult"
type="tns:Indicator"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateIndicatorResult: The **Indicator** complex type (section 2.2.4.125) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.5.

3.1.4.5.3 Complex Types

None.

3.1.4.5.4 Simple Types

None.

3.1.4.5.5 Attributes

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None.

3.1.4.5.6 Groups

None.

3.1.4.5.7 Attribute Groups

None.

3.1.4.6 CreateKpi

The **CreateKpi** operation is used to create a **Kpi** complex type (section 2.2.4.128) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateKpi WSDL operation**.

```
<wsdl:operation name="CreateKpi" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateKpiSoapIn"/>
  <wsdl:output message="tns:CreateKpiSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateKpiSoapIn** request message (section 3.1.4.6.1.1), and the server (2) responds with a **CreateKpiSoapOut** response message (section 3.1.4.6.1.2) as follows:

- The protocol client MUST send the **Kpi** and its target location on the server (2).
- The server (2) MUST create the specified **Kpi** at the specified server (2) location.
- If creation is successful, the server (2) MUST return the created **Kpi** with the following fields set as specified in the **FirstClassElement** (section 2.2.4.99) and **KpiMeasure** (section 2.2.4.129) complex types:
  - Location
  - CreatedBy
  - ModifiedBy
  - CreatedDate
  - LastModified
  - Version
  - Actuals.OwnerKpiLocation
  - Targets.OwnerKpiLocation

Exceptions:

Error code	Description
InvalidKpi	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.6.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateKpiSoapIn	The request WSDL message for the **CreateKpi** **WSDL operation**.
CreateKpiSoapOut	The response WSDL message for the **CreateKpi** WSDL operation.

3.1.4.6.1.1 CreateKpiSoapIn

The request **WSDL message** for the **CreateKpi** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateKpi
```

The **SOAP body** contains the **CreateKpi** element.

3.1.4.6.1.2 CreateKpiSoapOut

The response **WSDL message** for the **CreateKpi** **WSDL operation**.

The **SOAP body** contains the **CreateKpiResponse** element.

3.1.4.6.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateKpi	The input data for the **CreateKpi** **WSDL operation**.

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Element	Description
CreateKpiResponse	The result data for the **CreateKpi** WSDL operation.

3.1.4.6.2.1 CreateKpi

The **CreateKpi** element specifies the input data for the **CreateKpi** **WSDL operation**.

```
<xs:element name="CreateKpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="kpi" type="tns:Kpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

listUrl: The location on the **server (2)** where the **Kpi** complex type (section 2.2.4.128) is to be created. This element MUST be present. It MUST be a valid relative **URL** as specified in [RFC1808] and MUST be a valid **site (2)** on the server (2).

kpi: The **KPI** to be created on the server (2). This element MUST be present.

3.1.4.6.2.2 CreateKpiResponse

The **CreateKpiResponse** element specifies the result data for the **CreateKpi** **WSDL operation**.

```
<xs:element name="CreateKpiResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateKpiResult" type="tns:Kpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateKpiResult: The **Kpi** complex type (section 2.2.4.128) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.6.

3.1.4.6.3 Complex Types

None.

3.1.4.6.4 Simple Types

None.

3.1.4.6.5 Attributes

None.

3.1.4.6.6 Groups

None.

3.1.4.6.7 Attribute Groups

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None.

3.1.4.7 CreateReportView

The **CreateReportView** operation creates a **ReportView** complex type (section 2.2.4.160) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateReportView WSDL operation**.

```
<wsdl:operation name="CreateReportView" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateReportViewSoapIn"/>
  <wsdl:output message="tns:CreateReportViewSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateReportViewSoapIn** request message (section 3.1.4.7.1.1), and the server (2) responds with a **CreateReportViewSoapOut** response message (section 3.1.4.7.1.2) as follows:

- The protocol client MUST send the **ReportView** and **URL** location.
- The server (2) MUST create the specified **ReportView** at the specified URL location.
- If creation is successful, the server (2) MUST return the created **ReportView** with the following fields set as specified in the **FirstClassElement** complex type (section 2.2.4.99):
  - Location
  - CreatedBy
  - ModifiedBy
  - CreatedDate
  - LastModified
  - Version

Exceptions:

Error code	Description
InvalidReportView	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.7.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
CreateReportViewSoapIn	The request WSDL message for the **CreateReportView** **WSDL operation**.
CreateReportViewSoapOut	The response WSDL message for the **CreateReportView** WSDL operation.

3.1.4.7.1.1 CreateReportViewSoapIn

The request **WSDL message** for the **CreateReportView** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateReportView
```

The **SOAP body** contains the **CreateReportView** element.

3.1.4.7.1.2 CreateReportViewSoapOut

The response **WSDL message** for the **CreateReportView** **WSDL operation**.

The **SOAP body** contains the **CreateReportViewResponse** element.

3.1.4.7.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateReportView	The input data for the **CreateReportView** **WSDL operation**.
CreateReportViewResponse	The result data for the **CreateReportView** WSDL operation.

3.1.4.7.2.1 CreateReportView

The **CreateReportView** element specifies the input data for the **CreateReportView** **WSDL operation**.

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```
<xs:element name="CreateReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="reportView" type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

listUrl: The location on the **server (2)** where the **ReportView** complex type (section 2.2.4.160) is to be created. This element MUST be present. It MUST be a valid relative **URL** as specified in [RFC1808] and MUST be a valid **site (2)** on the server (2).

reportView: The **ReportView** to be created on the server (2). This element MUST be present.

3.1.4.7.2.2 CreateReportViewResponse

The **CreateReportViewResponse** element specifies the result data for the **CreateReportView WSDL operation**.

```
<xs:element name="CreateReportViewResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateReportViewResult"
type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateReportViewResult: The **ReportView** complex type (section 2.2.4.160) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.7.

3.1.4.7.3 Complex Types

None.

3.1.4.7.4 Simple Types

None.

3.1.4.7.5 Attributes

None.

3.1.4.7.6 Groups

None.

3.1.4.7.7 Attribute Groups

None.

3.1.4.8 CreateScorecard

The **CreateScorecard** operation creates a **Scorecard** complex type (section 2.2.4.162) on the **server (2)**.

The following is the **WSDL** port type specification of the **CreateScorecard WSDL operation**.

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```
<wsdl:operation name="CreateScorecard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:CreateScorecardSoapIn"/>
  <wsdl:output message="tns:CreateScorecardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateScorecardSoapIn** request message (section 3.1.4.8.1.1), and the server (2) responds with a **CreateScorecardSoapOut** response message (section 3.1.4.8.1.2) as follows:

- The protocol client MUST send the **Scorecard** and **URL** location.
- The server (2) MUST create the specified **Scorecard** at the specified URL location.
- If creation is successful, the server (2) MUST return the created **Scorecard** with the following fields set as specified in the **FirstClassElement** complex type (section 2.2.4.99):
  - Location
  - CreatedBy
  - ModifiedBy
  - CreatedDate
  - LastModified
  - Version

Exceptions:

Error code	Description
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common list of Error Codes (section 2.2.2.1.3).
FCOCreateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
FCOCreateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationUrlLength	See Common List of Error Codes (section 2.2.2.1.3).
RepositoryLocationAbsoluteUrl	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.8.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

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Message	Description
CreateScorecardSoapIn	The request WSDL message for the **CreateScorecard** **WSDL operation**.
CreateScorecardSoapOut	The response WSDL message for the **CreateScorecard** WSDL operation.

3.1.4.8.1.1 CreateScorecardSoapIn

The request **WSDL message** for the **CreateScorecard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateScorecard
```

The **SOAP body** contains the **CreateScorecard** element.

3.1.4.8.1.2 CreateScorecardSoapOut

The response **WSDL message** for the **CreateScorecard** **WSDL operation**.

The **SOAP body** contains the **CreateScorecardResponse** element.

3.1.4.8.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateScorecard	The input data for the **CreateScorecard** **WSDL operation**.
CreateScorecardResponse	The result data for the **CreateScorecard** WSDL operation.

3.1.4.8.2.1 CreateScorecard

The **CreateScorecard** element specifies the input data for the **CreateScorecard** **WSDL operation**.

```
<xs:element name="CreateScorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecard" type="tns:Scorecard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

listUrl: The location on the **server (2)** where a **Scorecard** complex type (section 2.2.4.162) is to be created. This element MUST present. It MUST be a valid relative **URL** as specified in [RFC1808] and MUST be a valid **site (2)** on the server (2).

scorecard: The Scorecard to be created on the server (2). This element MUST be present.

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3.1.4.8.2.2 CreateScorecardResponse

The **CreateScorecardResponse** element specifies the result data for the **CreateScorecard** **WSDL operation**.

```
<xs:element name="CreateScorecardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateScorecardResult"
type="tns:Scorecard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateScorecardResult: A **Scorecard** complex type (section 2.2.4.162) created on the **server (2)**. This element MUST be present. All of the fields MUST be set as designated in section 3.1.4.8.

3.1.4.8.3 Complex Types

None.

3.1.4.8.4 Simple Types

None.

3.1.4.8.5 Attributes

None.

3.1.4.8.6 Groups

None.

3.1.4.8.7 Attribute Groups

None.

3.1.4.9 DeleteAnnotation

The **DeleteAnnotation** operation deletes an **Annotation** complex type (section 2.2.4.18) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteAnnotation** **WSDL operation**.

```
<wsdl:operation name="DeleteAnnotation" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteAnnotationSoapIn"/>
  <wsdl:output message="tns:DeleteAnnotationSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteAnnotationSoapIn** request message (section 3.1.4.9.1.1), and the server (2) responds with a **DeleteAnnotationSoapOut** response message (section 3.1.4.9.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of an **Annotation**.
- The server (2) MUST delete the **Annotation**.

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Exceptions:

Error code	Description
AnnotationNotEnabled	**Annotations** are not enabled in the server (2).
AnnotationDeleteNotEnabled	If Annotation Delete is not enabled in the server (2), but this request, which would delete comments, is received, the comments will not be changed on the server (2) and the **AnnotationDeleteNotEnabled** error code will be returned.
InvalidAnnotation	The **annotation** does not exist in the server (2).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.9.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteAnnotationSoapIn	The request WSDL message for the **DeleteAnnotation** **WSDL operation**.
DeleteAnnotationSoapOut	The response WSDL message for the **DeleteAnnotation** WSDL operation.

3.1.4.9.1.1 DeleteAnnotationSoapIn

The request **WSDL message** for the **DeleteAnnotation** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteAnnotation
```

The **SOAP body** contains the **DeleteAnnotation** element.

3.1.4.9.1.2 DeleteAnnotationSoapOut

The response **WSDL message** for the **DeleteAnnotation** **WSDL operation**.

The **SOAP body** contains the **DeleteAnnotationResponse** element.

3.1.4.9.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteAnnotation	The input data for the **DeleteAnnotation** **WSDL operation**.
DeleteAnnotationResponse	The result data for the **DeleteAnnotation** WSDL operation.

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3.1.4.9.2.1 DeleteAnnotation

The **DeleteAnnotation** element specifies the input data for the **DeleteAnnotation** **WSDL operation**.

```
<xs:element name="DeleteAnnotation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="annotationID"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

annotationID: A **GUID** that specifies the **Annotation** complex type (section 2.2.4.18) to be deleted. This element MUST be present.

3.1.4.9.2.2 DeleteAnnotationResponse

The **DeleteAnnotationResponse** element specifies the result data for the **DeleteAnnotation** **WSDL operation**.

```
<xs:element name="DeleteAnnotationResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.9.3 Complex Types

None.

3.1.4.9.4 Simple Types

None.

3.1.4.9.5 Attributes

None.

3.1.4.9.6 Groups

None.

3.1.4.9.7 Attribute Groups

None.

3.1.4.10 DeleteDashboard

The **DeleteDashboard** operation deletes a **Dashboard** complex type (section 2.2.4.79) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteDashboard** **WSDL operation**.

```
<wsdl:operation name="DeleteDashboard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteDashboardSoapIn"/>
```


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```
  <wsdl:output message="tns:DeleteDashboardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteDashboardSoapIn** request message (section 3.1.4.10.1.1), and the server (2) responds with a **DeleteDashboardSoapOut** response message (section 3.1.4.10.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a **Dashboard**.
- The server (2) MUST delete the **Dashboard**.

Exceptions:

Error code	Description
FCODeleteFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the ErrorCode MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.10.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteDashboardSoapIn	The request WSDL message for the **DeleteDashboard** **WSDL operation**.
DeleteDashboardSoapOut	The response WSDL message for the **DeleteDashboard** WSDL operation.

3.1.4.10.1.1 DeleteDashboardSoapIn

The request **WSDL message** for the **DeleteDashboard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteDashboard
```

The **SOAP body** contains the **DeleteDashboard** element.

3.1.4.10.1.2 DeleteDashboardSoapOut

The response **WSDL message** for the **DeleteDashboard** **WSDL operation**.

The **SOAP body** contains the **DeleteDashboardResponse** element.

3.1.4.10.2 Elements

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The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteDashboard	The input data for the **DeleteDashboard** **WSDL operation**.
DeleteDashboardResponse	The result data for the **DeleteDashboard** WSDL operation.

3.1.4.10.2.1 DeleteDashboard

The **DeleteDashboard** element specifies the input data for the **DeleteDashboard** **WSDL operation**.

```
<xs:element name="DeleteDashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present and MUST contain the location of a **Dashboard** complex type (section 2.2.4.79).

3.1.4.10.2.2 DeleteDashboardResponse

The **DeleteDashboardResponse** element specifies the result data for the **DeleteDashboard** **WSDL operation**.

```
<xs:element name="DeleteDashboardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.10.3 Complex Types

None.

3.1.4.10.4 Simple Types

None.

3.1.4.10.5 Attributes

None.

3.1.4.10.6 Groups

None.

3.1.4.10.7 Attribute Groups

None.

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3.1.4.11 DeleteDataSource

The **DeleteDataSource** operation deletes a **DataSource** complex type (section 2.2.4.85) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteDataSource** **WSDL operation**.

```
<wsdl:operation name="DeleteDataSource" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteDataSourceSoapIn"/>
  <wsdl:output message="tns:DeleteDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteDataSourceSoapIn** request message (section 3.1.4.11.1.1), and the server (2) responds with a **DeleteDataSourceSoapOut** response message (section 3.1.4.11.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) for a **DataSource**.
- The server (2) MUST delete the **DataSource**.

Exceptions:

Error code	Description
FCODeleteFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.11.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteDataSourceSoapIn	The request WSDL message for the **DeleteDataSource** **WSDL operation**.
DeleteDataSourceSoapOut	The response WSDL message for the **DeleteDataSource** WSDL operation.

3.1.4.11.1.1 DeleteDataSourceSoapIn

The request **WSDL message** for the **DeleteDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteDataSource
```

The **SOAP body** contains the **DeleteDataSource** element.

3.1.4.11.1.2 DeleteDataSourceSoapOut

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The response **WSDL message** for the **DeleteDataSource WSDL operation**.

The **SOAP body** contains the **DeleteDataSourceResponse** element.

3.1.4.11.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteDataSource	The input data for the **DeleteDataSource WSDL operation**.
DeleteDataSourceResponse	The result data for the **DeleteDataSource** WSDL operation.

3.1.4.11.2.1 DeleteDataSource

The **DeleteDataSource** element specifies the input data for the **DeleteDataSource WSDL operation**.

```
<xs:element name="DeleteDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. It MUST contain the location of a **DataSource**.

3.1.4.11.2.2 DeleteDataSourceResponse

The **DeleteDataSourceResponse** element specifies the result data for the **DeleteDataSource WSDL operation**.

```
<xs:element name="DeleteDataSourceResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.11.3 Complex Types

None.

3.1.4.11.4 Simple Types

None.

3.1.4.11.5 Attributes

None.

3.1.4.11.6 Groups

None.

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3.1.4.11.7 Attribute Groups

None.

3.1.4.12 DeleteFilter

The **DeleteFilter** operation deletes a **Filter** complex type (section 2.2.4.98) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteFilter** **WSDL operation**.

```
<wsdl:operation name="DeleteFilter" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteFilterSoapIn"/>
  <wsdl:output message="tns:DeleteFilterSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteFilterSoapIn** request message (section 3.1.4.12.1.1), and the server (2) responds with a **DeleteFilterSoapOut** response message (section 3.1.4.12.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a **Filter**.
- The server (2) MUST delete the **Filter**.

Exceptions:

Error code	Description
FCODeleteFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.12.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteFilterSoapIn	The request WSDL message for the **DeleteFilter** **WSDL operation**.
DeleteFilterSoapOut	The response WSDL message for the **DeleteFilter** WSDL operation.

3.1.4.12.1.1 DeleteFilterSoapIn

The request **WSDL message** for the **DeleteFilter** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteFilter
```

The **SOAP body** contains the **DeleteFilter** element.

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3.1.4.12.1.2 DeleteFilterSoapOut

The response **WSDL message** for the **DeleteFilter** **WSDL operation**.

The **SOAP body** contains the **DeleteFilterResponse** element.

3.1.4.12.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteFilter	The input data for the **DeleteFilter** **WSDL operation**.
DeleteFilterResponse	The result data for the **DeleteFilter** WSDL operation.

3.1.4.12.2.1 DeleteFilter

The **DeleteFilter** element specifies the input data for the **DeleteFilter** **WSDL operation**.

```
<xs:element name="DeleteFilter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. It MUST contain the location of a **Filter**.

3.1.4.12.2.2 DeleteFilterResponse

The **DeleteFilterResponse** element specifies the result data for the **DeleteFilter** **WSDL operation**.

```
<xs:element name="DeleteFilterResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.12.3 Complex Types

None.

3.1.4.12.4 Simple Types

None.

3.1.4.12.5 Attributes

None.

3.1.4.12.6 Groups

None.

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3.1.4.12.7 Attribute Groups

None.

3.1.4.13 DeleteIndicator

The **DeleteIndicator** operation deletes an **Indicator** complex type (section 2.2.4.125) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteIndicator** **WSDL operation**.

```
<wsdl:operation name="DeleteIndicator" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteIndicatorSoapIn"/>
  <wsdl:output message="tns:DeleteIndicatorSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteIndicatorSoapIn** request message (section 3.1.4.13.1.1), and the server (2) responds with a **DeleteIndicatorSoapOut** response message (section 3.1.4.13.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of an **Indicator**.
- The server (2) MUST delete the **Indicator**.

Exceptions:

Error code	Description
FCODeleteFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.13.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteIndicatorSoapIn	The request WSDL message for the **DeleteIndicator** **WSDL operation**.
DeleteIndicatorSoapOut	The response WSDL message for the **DeleteIndicator** WSDL operation.

3.1.4.13.1.1 DeleteIndicatorSoapIn

The request **WSDL message** for the **DeleteIndicator** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteIndicator
```


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The **SOAP body** contains the **DeleteIndicator** element.

3.1.4.13.1.2 DeleteIndicatorSoapOut

The response **WSDL message** for the **DeleteIndicator** **WSDL operation**.

The **SOAP body** contains the **DeleteIndicatorResponse** element.

3.1.4.13.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteIndicator	The input data for the **DeleteIndicator** **WSDL operation**.
DeleteIndicatorResponse	The result data for the **DeleteIndicator** WSDL operation.

3.1.4.13.2.1 DeleteIndicator

The **DeleteIndicator** element specifies the input data for the **DeleteIndicator** **WSDL operation**.

```
<xs:element name="DeleteIndicator" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. It MUST contain the location of an Indicator.

3.1.4.13.2.2 DeleteIndicatorResponse

The **DeleteIndicatorResponse** element specifies the result data for the **DeleteIndicator** **WSDL operation**.

```
<xs:element name="DeleteIndicatorResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.13.3 Complex Types

None.

3.1.4.13.4 Simple Types

None.

3.1.4.13.5 Attributes

None.

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3.1.4.13.6 Groups

None.

3.1.4.13.7 Attribute Groups

None.

3.1.4.14 DeleteKpi

The **DeleteKpi** operation deletes a **Kpi** complex type (section 2.2.4.128) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteKpi** **WSDL operation**.

```
<wsdl:operation name="DeleteKpi" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteKpiSoapIn"/>
  <wsdl:output message="tns:DeleteKpiSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteKpiSoapIn** request message (section 3.1.4.14.1.1), and the server (2) responds with a **DeleteKpiSoapOut** response message (section 3.1.4.14.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a **Kpi**.
- The server (2) MUST delete the **Kpi**.

Exceptions:

Error code	Description
FCODeleteFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.14.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteKpiSoapIn	The request WSDL message for the **DeleteKpi** **WSDL operation**.
DeleteKpiSoapOut	The response WSDL message for the **DeleteKpi** WSDL operation.

3.1.4.14.1.1 DeleteKpiSoapIn

The request **WSDL message** for the **DeleteKpi** **WSDL operation**.

The **SOAP action** value is:

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```
http://www.microsoft.com/performancepoint/scorecards/DeleteKpi
```

The **SOAP body** contains the **DeleteKpi** element.

3.1.4.14.1.2 DeleteKpiSoapOut

The response **WSDL message** for the **DeleteKpi** **WSDL operation**.

The **SOAP body** contains the **DeleteKpiResponse** element.

3.1.4.14.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteKpi	The input data for the **DeleteKpi** **WSDL operation**.
DeleteKpiResponse	The result data for the **DeleteKpi** WSDL operation.

3.1.4.14.2.1 DeleteKpi

The **DeleteKpi** element specifies the input data for the **DeleteKpi** **WSDL operation**.

```
<xs:element name="DeleteKpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. It MUST contain the location of a **KPI**.

3.1.4.14.2.2 DeleteKpiResponse

The **DeleteKpiResponse** element specifies the result data for the **DeleteKpi** **WSDL operation**.

```
<xs:element name="DeleteKpiResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.14.3 Complex Types

None.

3.1.4.14.4 Simple Types

None.

3.1.4.14.5 Attributes

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None.

3.1.4.14.6 Groups

None.

3.1.4.14.7 Attribute Groups

None.

3.1.4.15 DeleteReportView

The **DeleteReportView** operation deletes a **ReportView** complex type (section 2.2.4.160) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteReportView** **WSDL operation**.

```
<wsdl:operation name="DeleteReportView" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteReportViewSoapIn"/>
  <wsdl:output message="tns:DeleteReportViewSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteReportViewSoapIn** request message (section 3.1.4.15.1.1), and the server (2) responds with a **DeleteReportViewSoapOut** response message (section 3.1.4.15.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a **ReportView**.
- The server (2) MUST delete the **ReportView**.

Exceptions:

Error code	Description
FCODeleteFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.15.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
DeleteReportViewSoapIn	The request WSDL message for the **DeleteReportView** **WSDL operation**.
DeleteReportViewSoapOut	The response WSDL message for the **DeleteReportView** WSDL operation.

3.1.4.15.1.1 DeleteReportViewSoapIn

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The request **WSDL message** for the **DeleteReportView** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteReportView
```

The **SOAP body** contains the **DeleteReportView** element.

3.1.4.15.1.2 DeleteReportViewSoapOut

The response **WSDL message** for the **DeleteReportView** **WSDL operation**.

The **SOAP body** contains the **DeleteReportViewResponse** element.

3.1.4.15.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteReportView	The input data for the **DeleteReportView** **WSDL operation**.
DeleteReportViewResponse	The result data for the **DeleteReportView** WSDL operation.

3.1.4.15.2.1 DeleteReportView

The **DeleteReportView** element specifies the input data for the **DeleteReportView** **WSDL operation**.

```
<xs:element name="DeleteReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. It MUST contain the location of a **ReportView** complex type (section 2.2.4.160).

3.1.4.15.2.2 DeleteReportViewResponse

The **DeleteReportViewResponse** element specifies the result data for the **DeleteReportView** **WSDL operation**.

```
<xs:element name="DeleteReportViewResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.15.3 Complex Types

None.

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3.1.4.15.4 Simple Types

None.

3.1.4.15.5 Attributes

None.

3.1.4.15.6 Groups

None.

3.1.4.15.7 Attribute Groups

None.

3.1.4.16 DeleteScorecard

The **DeleteScorecard** operation deletes a **Scorecard** complex type (section 2.2.4.162) from the **server (2)**.

The following is the **WSDL** port type specification of the **DeleteScorecard WSDL operation**.

```
<wsdl:operation name="DeleteScorecard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:DeleteScorecardSoapIn"/>
  <wsdl:output message="tns:DeleteScorecardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **DeleteScorecardSoapIn** request message (section 3.1.4.16.1.1), and the server (2) responds with a **DeleteScorecardSoapOut** response message (section 3.1.4.16.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a **Scorecard**.
- The server (2) MUST delete the **Scorecard**.

Exceptions:

Error code	Description
InvalidPermission	The content store<25> containing this object no longer exists or the object has already been deleted.
FCODeleteFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.16.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

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Message	Description
DeleteScorecardSoapIn	The request WSDL message for the **DeleteScorecard** **WSDL operation**.
DeleteScorecardSoapOut	The response WSDL message for the **DeleteScorecard** WSDL operation.

3.1.4.16.1.1 DeleteScorecardSoapIn

The request **WSDL message** for the **DeleteScorecard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/DeleteScorecard
```

The **SOAP body** contains the **DeleteScorecard** element.

3.1.4.16.1.2 DeleteScorecardSoapOut

The response **WSDL message** for the **DeleteScorecard** **WSDL operation**.

The **SOAP body** contains the **DeleteScorecardResponse** element.

3.1.4.16.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
DeleteScorecard	The input data for the **DeleteScorecard** **WSDL operation**.
DeleteScorecardResponse	The result data for the **DeleteScorecard** WSDL operation.

3.1.4.16.2.1 DeleteScorecard

The **DeleteScorecard** element specifies the input data for the **DeleteScorecard** **WSDL operation**.

```
<xs:element name="DeleteScorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. It MUST contain the location of a **Scorecard** complex type (section 2.2.4.162).

3.1.4.16.2.2 DeleteScorecardResponse

The **DeleteScorecardResponse** element specifies the result data for the **DeleteScorecard** **WSDL operation**.

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```
<xs:element name="DeleteScorecardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.16.3 Complex Types

None.

3.1.4.16.4 Simple Types

None.

3.1.4.16.5 Attributes

None.

3.1.4.16.6 Groups

None.

3.1.4.16.7 Attribute Groups

None.

3.1.4.17 ExportDashboard

The **ExportDashboard** operation<26> is used to export **dashboard** pages and their associated content from the **server (2)** into a specified Deployment Package ([MS-PRIMEPF]).

The following is the **WSDL** port type specification of the **ExportDashboard** **WSDL operation**.

```
<wsdl:operation name="ExportDashboard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:ExportDashboardSoapIn"/>
  <wsdl:output message="tns:ExportDashboardSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **ExportDashboardSoapIn** request message (section 3.1.4.17.1.1), and the server (2) responds with an **ExportDashboardSoapOut** response message (section 3.1.4.17.1.2) as follows:

- The server (2) exports the items specified in **itemUrls** into the Deployment Package located at the filename.
- If there was an application error on the server (2) during the operation, the server (2) MUST return a **SOAP fault** response, which SHOULD include one of exceptions specified below, but MAY contain any other exceptions.

Exceptions:

Error code	Description
InvalidUrl	An invalid **URL** was specified
FCOUnauthorizedAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

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In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1

3.1.4.17.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
ExportDashboardSoapIn	The request WSDL message for the **ExportDashboard** **WSDL operation**.
ExportDashboardSoapOut	The response WSDL message for the **ExportDashboard** WSDL operation.

3.1.4.17.1.1 ExportDashboardSoapIn

The request **WSDL message** for the **ExportDashboard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/ExportDashboard
```

The **SOAP body** contains the **ExportDashboard** element.

3.1.4.17.1.2 ExportDashboardSoapOut

The response **WSDL message** for the **ExportDashboard** **WSDL operation**.

The **SOAP body** contains the **ExportDashboardResponse** element.

3.1.4.17.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ExportDashboard	The input data for the **ExportDashboard** **WSDL operation**.
ExportDashboardResponse	The result data for the **ExportDashboard** WSDL operation.

3.1.4.17.2.1 ExportDashboard

The **ExportDashboard** element specifies the input data for the **ExportDashboard** **WSDL operation**.

```
<xs:element name="ExportDashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="filename" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="siteCollectionUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="itemUrls" type="tns:ArrayOfString"/>
    </xs:sequence>
```


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```
  </xs:complexType>
</xs:element>
```

filename: Contains the **site collection** relative path and file name of the Deployment Package ([MS-PRIMEPF]) to use for the export. The path specified MUST be the relative path of a **document library** in the site collection specified in **siteCollectionUrl**. This element MUST be present.

siteCollectionUrl: Contains the site collection **URL** to use for the export. This element MUST be present.

itemUrls: Contains an array of strings containing the site relative URLs of the items to include in the Deployment Package. This element MUST be present. It MUST contain at least one item URL.

3.1.4.17.2.2 ExportDashboardResponse

The **ExportDashboardResponse** element specifies the result data for the **ExportDashboard** **WSDL operation**.

```
<xs:element name="ExportDashboardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.17.3 Complex Types

None.

3.1.4.17.4 Simple Types

None.

3.1.4.17.5 Attributes

None.

3.1.4.17.6 Groups

None.

3.1.4.17.7 Attribute Groups

None.

3.1.4.18 GenerateView

The **GenerateView** operation generates the data structure that represents a **scorecard** grid view, the **GridViewData** complex type (section 2.2.4.121), based on information stored on the **server (2)**.

The following is the **WSDL** port type specification of the **GenerateView** **WSDL operation**.

```
<wsdl:operation name="GenerateView" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GenerateViewSoapIn"/>
  <wsdl:output message="tns:GenerateViewSoapOut"/>
</wsdl:operation>
```


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The protocol client sends a **GenerateViewSoapIn** request message (section 3.1.4.18.1.1), and the server (2) responds with a **GenerateViewSoapOut** response message (section 3.1.4.18.1.2) as follows:

- The server (2) protocol uses the **scorecardLocation** to retrieve the scorecard for which the view will be generated.
- **pageFilters** MAY be used to **slice** the scorecard data.
- **propertyBags** MUST NOT be null, but MAY be empty or SHOULD contain information that will be consumed by the server (2) defined **transforms** for the scorecard. See the **GridViewTransformReference** complex type (section 2.2.4.123) for details.
- If there was an application error on the server (2) during the operation, the server (2) MUST return a **SOAP fault** response, which SHOULD include one of the exceptions specified in the **GetScorecard** (section 3.1.4.51) and **GetDataSource** (section 3.1.4.35) operations, but MAY instead contain any other exceptions.

3.1.4.18.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GenerateViewSoapIn	The request WSDL message for the **GenerateView** **WSDL operation**.
GenerateViewSoapOut	The response WSDL message for the **GenerateView** WSDL operation.

3.1.4.18.1.1 GenerateViewSoapIn

The request **WSDL message** for the **GenerateView** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GenerateView
```

The **SOAP body** contains the **GenerateView** element.

3.1.4.18.1.2 GenerateViewSoapOut

The response **WSDL message** for the **GenerateView** **WSDL operation**.

The **SOAP body** contains the **GenerateViewResponse** element.

3.1.4.18.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GenerateView	The input data for the **GenerateView** **WSDL operation**.
GenerateViewResponse	The result data for the **GenerateView** WSDL operation.

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3.1.4.18.2.1 GenerateView

The **GenerateView** element specifies the input data for the **GenerateView** **WSDL operation**.

```
<xs:element name="GenerateView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecardLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="pageFilters" type="tns:ArrayOfMember"/>
      <xs:element minOccurs="0" maxOccurs="1" name="propertyBags"
type="tns:DictionaryWrapperOfStringPropertyBag"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecardLocation: Points to the **scorecard** for which the grid view will be generated, as defined in the **RepositoryLocation** complex type (section 2.2.4.161). It MUST NOT be null or empty, and it MUST point to a valid scorecard location. If ANY of those conditions are not met, the returned view is null.

pageFilters: Represents a collection of **members (2)** used to **slice** the scorecard values, as defined in the **ArrayOfMember** complex type (section 2.2.4.45).

propertyBags: Is a dictionary, as defined in the **DictionaryWrapperOfStringPropertyBag** complex type (section 2.2.4.89), containing specific settings that will be consumed by each individual transformation defined for the scorecard. See the **GridViewTransformReference** complex type in section 2.2.4.123 for details. This element MUST NOT be null, but MAY be empty.

3.1.4.18.2.2 GenerateViewResponse

The **GenerateViewResponse** element specifies the result data for the **GenerateView** **WSDL operation**.

```
<xs:element name="GenerateViewResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GenerateViewResult"
type="tns:GridViewData"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GenerateViewResult: Represents a **scorecard** grid view data, as defined in the **GridViewData** complex type (section 2.2.4.121). The returned result is **NULL,** if **scorecardLocation** is null, empty or invalid.

3.1.4.18.3 Complex Types

None.

3.1.4.18.4 Simple Types

None.

3.1.4.18.5 Attributes

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None.

3.1.4.18.6 Groups

None.

3.1.4.18.7 Attribute Groups

None.

3.1.4.19 GenerateViewDirect

The **GenerateViewDirect** operation generates the data structure that represents a **scorecard** grid view (see **GridViewData** complex type, section 2.2.4.121), using information sent from the client.

The following is the **WSDL** port type specification of the **GenerateViewDirect** **WSDL operation**.

```
<wsdl:operation name="GenerateViewDirect" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GenerateViewDirectSoapIn"/>
  <wsdl:output message="tns:GenerateViewDirectSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GenerateViewDirectSoapIn** request message (section 3.1.4.19.1.1), and the **server (2)** responds with a **GenerateViewDirectSoapOut** response message (section 3.1.4.19.1.2) as follows:

- The server (2) protocol uses the **scorecard, kpis, dataSources** and **indicators** to build the scorecard view. The provided information can be incomplete, in which case the missing information will be retrieved from the server (2).
- **pageFilters** MAY be used to **slice** the scorecard data.
- **propertyBags** MUST NOT be null but MAY be empty or SHOULD contain information that will be consumed by the server-defined **transforms** for the scorecard. See the **GridViewTransformReference** complex type (section 2.2.4.123) for details.

3.1.4.19.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GenerateViewDirectSoapIn	The request WSDL message for the **GenerateViewDirect** **WSDL operation**.
GenerateViewDirectSoapOut	The response WSDL message for the **GenerateViewDirect** WSDL operation.

3.1.4.19.1.1 GenerateViewDirectSoapIn

The request **WSDL message** for the **GenerateViewDirect** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GenerateViewDirect
```


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The **SOAP body** contains the **GenerateViewDirect** element.

3.1.4.19.1.2 GenerateViewDirectSoapOut

The response **WSDL message** for the **GenerateViewDirect WSDL operation**.

The **SOAP body** contains the **GenerateViewDirectResponse** element.

3.1.4.19.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GenerateViewDirect	The input data for the **GenerateViewDirect WSDL operation**.
GenerateViewDirectResponse	The result data for the **GenerateViewDirect** WSDL operation.

3.1.4.19.2.1 GenerateViewDirect

The **GenerateViewDirect** element specifies the input data for the **GenerateViewDirect WSDL operation**.

```
<xs:element name="GenerateViewDirect" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecard" type="tns:Scorecard"/>
      <xs:element minOccurs="0" maxOccurs="1" name="kpis" type="tns:ArrayOfKpi"/>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSources"
type="tns:ArrayOfDataSource"/>
      <xs:element minOccurs="0" maxOccurs="1" name="indicators" type="tns:ArrayOfIndicator"/>
      <xs:element minOccurs="0" maxOccurs="1" name="pageFilters" type="tns:ArrayOfMember"/>
      <xs:element minOccurs="0" maxOccurs="1" name="propertyBags"
type="tns:DictionaryWrapperOfStringPropertyBag"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecard: The **scorecard** for which the grid view will be generated. The element MUST NOT be null.

kpis: Represents a **list (1)** of **Kpi** complex types (section 2.2.4.128) used by **scorecard,** as defined in the **ArrayOfKpi** complex type (section 2.2.4.41). It MAY be null and it SHOULD contain all the **Kpis** referenced by **scorecard**. It MUST contain at least all the **Kpis** referenced by **scorecard** that are not yet stored on the **server (2)**.

dataSources: Represents a list (1) of **data sources (1)** used by **scorecard,** as defined in the **ArrayOfDataSource** complex type (section 3.1.4.19.3.2). It MAY be null and it SHOULD contain all the data sources referenced by **scorecard**. It MUST contain at least all the data sources (1) referenced by **scorecard** that are not yet stored on the server (2).

indicators: Represents a list (1) of **indicators** used by **scorecard,** as defined in the **ArrayOfIndicator** complex type (section 3.1.4.19.3.1). It MAY be null and it SHOULD contain all the **indicators** referenced by **scorecard**. It MUST contain at least all the **indicators** referenced by **scorecard** that are not yet stored on the server (2).

pageFilters: Represents a collection of **members (2)** used to **slice** the scorecard values, as defined in the **ArrayOfMember** complex type (section 2.2.4.45).

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propertyBags: Is a dictionary, as defined in the **DictionaryWrapperOfStringPropertyBag** complex type (section 2.2.4.89), containing specific settings that will be consumed by each individual transformation defined for the scorecard. See the **GridViewTransformReference** complex type (section 2.2.4.123) for details. The element MUST NOT be null, but MAY be empty.

3.1.4.19.2.2 GenerateViewDirectResponse

The **GenerateViewDirectResponse** element specifies the result data for the **GenerateViewDirect WSDL operation**.

```
<xs:element name="GenerateViewDirectResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GenerateViewDirectResult"
type="tns:GridViewData"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GenerateViewDirectResult: Represents a **scorecard** grid view data, as specified by the **GridViewData** complex type (section 2.2.4.121). The returned result is a **BpmException** complex type (section 2.2.4.61), if **scorecard** is null or invalid or if **kpis**, **dataSources,** and **indicators** together with the **server (2)** store do not contain all necessary dependencies.

3.1.4.19.3 Complex Types

The following table summarizes the **XML schema** complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfDataSource	Specifies an array of data sources.
ArrayOfIndicator	Specifies an array of indicators for a scorecard.

3.1.4.19.3.1 ArrayOfIndicator

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfIndicator** complex type specifies an array of indicators for a **scorecard**.

```
<xs:complexType name="ArrayOfIndicator" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Indicator" nillable="true"
type="tns:Indicator"/>
  </xs:sequence>
</xs:complexType>
```

Indicator: This element MUST NOT be null. It MUST conform to the schema of the **Indicator** complex type (section 2.2.4.125).

3.1.4.19.3.2 ArrayOfDataSource

Namespace: http://www.microsoft.com/performancepoint/scorecards

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The **ArrayOfDataSource** complex type specifies an array of data sources.

```
<xs:complexType name="ArrayOfDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="DataSource" nillable="true"
type="tns:DataSource"/>
  </xs:sequence>
</xs:complexType>
```

DataSource: This element MUST NOT be null and MUST conform to the schema of the **DataSource** (section 2.2.4.85) complex type.

3.1.4.19.4 Simple Types

None.

3.1.4.19.5 Attributes

None.

3.1.4.19.6 Groups

None.

3.1.4.19.7 Attribute Groups

None.

3.1.4.20 GetAllAnnotationsByScorecardLocation

The **GetAllAnnotationsByScorecardLocation** operation retrieves an array of **Annotation** complex type elements (section 2.2.4.18) associated with a **scorecard**.

The following is the **WSDL** port type specification of the **GetAllAnnotationsByScorecardLocation WSDL operation**.

```
<wsdl:operation name="GetAllAnnotationsByScorecardLocation"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetAllAnnotationsByScorecardLocationSoapIn"/>
  <wsdl:output message="tns:GetAllAnnotationsByScorecardLocationSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetAllAnnotationsByScorecardLocationSoapIn** request message (section 3.1.4.20.1.1), and the **server (2)** responds with a **GetAllAnnotationsByScorecardLocationSoapOut** response message (section 3.1.4.20.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a scorecard.
- The server (2) MUST retrieve an array of **Annotation** elements.

Exceptions:

Error code	Description
InvalidPermission	Caused by not having access to the scorecard. See section 2.2.2.1.3 for the Common list of Error Codes.

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In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.20.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetAllAnnotationsByScorecardLocationSoapIn	The request WSDL message for the **GetAllAnnotationsByScorecardLocation WSDL operation**.
GetAllAnnotationsByScorecardLocationSoapOut	The response WSDL message for the **GetAllAnnotationsByScorecardLocation** WSDL operation.

3.1.4.20.1.1 GetAllAnnotationsByScorecardLocationSoapIn

The request **WSDL message** for the **GetAllAnnotationsByScorecardLocation WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetAllAnnotationsByScorecardLocation
```

The **SOAP body** contains the **GetAllAnnotationsByScorecardLocation** element.

3.1.4.20.1.2 GetAllAnnotationsByScorecardLocationSoapOut

The response **WSDL message** for the **GetAllAnnotationsByScorecardLocation WSDL operation**.

The **SOAP body** contains the **GetAllAnnotationsByScorecardLocationResponse** element.

3.1.4.20.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetAllAnnotationsByScorecardLocation	The input data for the **GetAllAnnotationsByScorecardLocation WSDL operation**.
GetAllAnnotationsByScorecardLocationResponse	The result data for the **GetAllAnnotationsByScorecardLocation** WSDL operation.

3.1.4.20.2.1 GetAllAnnotationsByScorecardLocation

The **GetAllAnnotationsByScorecardLocation** element specifies the input data for the **GetAllAnnotationsByScorecardLocation WSDL operation**.

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```
<xs:element name="GetAllAnnotationsByScorecardLocation"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecardLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecardLocation: The location of a **scorecard**, as specified by a **RepositoryLocation** complex type (section 2.2.4.161). This element MUST be present.

3.1.4.20.2.2 GetAllAnnotationsByScorecardLocationResponse

The **GetAllAnnotationsByScorecardLocationResponse** element specifies the result data for the **GetAllAnnotationsByScorecardLocation WSDL operation**.

```
<xs:element name="GetAllAnnotationsByScorecardLocationResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1"
name="GetAllAnnotationsByScorecardLocationResult" type="tns:ArrayOfAnnotation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetAllAnnotationsByScorecardLocationResult: An array of **Annotation** complex type elements (section 2.2.4.18) associated with the **scorecardLocation** that was requested from the **server (2)**.

3.1.4.20.3 Complex Types

The following table summarizes the **XML schema** complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfAnnotation	Specifies an array of **Annotation** elements.

3.1.4.20.3.1 ArrayOfAnnotation

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfAnnotation** complex type specifies an array of **Annotation** elements.

```
<xs:complexType name="ArrayOfAnnotation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Annotation" nillable="true"
type="tns:Annotation"/>
  </xs:sequence>
</xs:complexType>
```

Annotation: This element MUST NOT be null and MUST conform to the schema of the **Annotation** complex type (section 2.2.4.18).

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3.1.4.20.4 Simple Types

None.

3.1.4.20.5 Attributes

None.

3.1.4.20.6 Groups

None.

3.1.4.20.7 Attribute Groups

None.

3.1.4.21 GetAnalyticReportView

The **GetAnalyticReportView** operation retrieves a **report view** from the **server (2)** that has been created through the **SaveTemporaryAnalyticReport** (section 3.1.4.65) or **CreateReportView** (section 3.1.4.7) operation.

The following is the **WSDL** port type specification of the **GetAnalyticReportView** **WSDL operation**.

```
<wsdl:operation name="GetAnalyticReportView" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetAnalyticReportViewSoapIn"/>
  <wsdl:output message="tns:GetAnalyticReportViewSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetAnalyticReportViewSoapIn** request message (section 3.1.4.21.1.1), and the server (2) responds with a **GetAnalyticReportViewSoapOut** response message (section 3.1.4.21.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the report view to be retrieved.
- The server (2) sends the corresponding report view.
- In the event that a report view cannot be retrieved, the server (2) SHOULD<27> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
InvalidPermission	If the report view was created with **SaveTemporaryAnalyticReport**, the security permissions are inherited from the parent report view. The location of the parent report view can be determined from the **RepositoryLocation** object "ParentReportViewLocation" embedded within "CustomData" of the report view.
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

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In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.21.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetAnalyticReportViewSoapIn	The request WSDL message for the **GetAnalyticReportView** **WSDL operation**.
GetAnalyticReportViewSoapOut	The response WSDL message for the **GetAnalyticReportView** WSDL operation.

3.1.4.21.1.1 GetAnalyticReportViewSoapIn

The request **WSDL message** for the **GetAnalyticReportView** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetAnalyticReportView
```

The **SOAP body** contains the **GetAnalyticReportView** element.

3.1.4.21.1.2 GetAnalyticReportViewSoapOut

The response **WSDL message** for the **GetAnalyticReportView** **WSDL operation**.

The **SOAP body** contains the **GetAnalyticReportViewResponse** element.

3.1.4.21.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetAnalyticReportView	The input data for the **GetAnalyticReportView** **WSDL operation**.
GetAnalyticReportViewResponse	The result data for the **GetAnalyticReportView** WSDL operation.

3.1.4.21.2.1 GetAnalyticReportView

The **GetAnalyticReportView** element specifies the input data for the **GetAnalyticReportView** **WSDL operation**.

```
<xs:element name="GetAnalyticReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="analyticReportViewLocation"
type="tns:RepositoryLocation"/>
```


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```
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

analyticReportViewLocation: A **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of the **report view** on the **server (2)**.

- If the report view to be retrieved was created with the **SaveTemporaryAnalyticReport** operation (section 3.1.4.65):
  - The **ItemGuid** property MUST equal the **GUID** that was returned from **SaveTemporaryAnalyticReport**.
  - The **ItemType** property MUST equal **TempReportView** as specified by the **FirstClassObjectType** simple type (section 2.2.5.20).
  - The **ItemUrl** property MUST equal an empty string.
- If the report view to be retrieved was created with the **CreateReportView** (section 3.1.4.7), the **ItemUrl** property MUST be set to the location of the report view.

3.1.4.21.2.2 GetAnalyticReportViewResponse

The **GetAnalyticReportViewResponse** element specifies the result data for the **GetAnalyticReportView** **WSDL operation**.

```
<xs:element name="GetAnalyticReportViewResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetAnalyticReportViewResult"
type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetAnalyticReportViewResult: The **ReportView** complex type object (section 2.2.4.160) that was requested from the **server (2)**.

3.1.4.21.3 Complex Types

None.

3.1.4.21.4 Simple Types

None.

3.1.4.21.5 Attributes

None.

3.1.4.21.6 Groups

None.

3.1.4.21.7 Attribute Groups

None.

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3.1.4.22 GetAnnotation

The **GetAnnotation** operation retrieves an **Annotation** complex type (section 2.2.4.18) associated with a **scorecard cell** from the **server (2)**.

The following is the **WSDL** port type specification of the **GetAnnotation** **WSDL operation**.

```
<wsdl:operation name="GetAnnotation" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetAnnotationSoapIn"/>
  <wsdl:output message="tns:GetAnnotationSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetAnnotationSoapIn** request message (section 3.1.4.22.1.1), and the server (2) responds with a **GetAnnotationSoapOut** response message (section 3.1.4.22.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the scorecard containing the **Annotation**. It also sends an array of **Tuple** complex type objects (section 3.1.4.22.3.2) and a string that specifies the **Annotation** within the scorecard to be retrieved. All of these objects MUST be present.
- The server (2) sends the corresponding **Annotation**.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.22.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetAnnotationSoapIn	The request WSDL message for the **GetAnnotation** **WSDL operation**.
GetAnnotationSoapOut	The response WSDL message for the **GetAnnotation** WSDL operation.

3.1.4.22.1.1 GetAnnotationSoapIn

The request **WSDL message** for the **GetAnnotation** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetAnnotation
```

The **SOAP body** contains the **GetAnnotation** element.

3.1.4.22.1.2 GetAnnotationSoapOut

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The response **WSDL message** for the **GetAnnotation WSDL operation**.

The **SOAP body** contains the **GetAnnotationResponse** element.

3.1.4.22.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetAnnotation	The input data for the **GetAnnotation WSDL operation**.
GetAnnotationResponse	The result data for the **GetAnnotation** WSDL operation.

3.1.4.22.2.1 GetAnnotation

The **GetAnnotation** element specifies the input data for the **GetAnnotation WSDL operation**.

```
<xs:element name="GetAnnotation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecardLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="tupleCollection"
type="tns:ArrayOfTuple"/>
      <xs:element minOccurs="0" maxOccurs="1" name="cellPath" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecardLocation: A **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of the **scorecard** on the **server (2)** containing the **Annotation**.

- This element MUST be present.
- The **ItemUrl** property MUST be set to the location of the **report view** associated with the **Annotation**.

tupleCollection: An array of **Tuple** complex type objects (section 3.1.4.22.3.2) that aggregates all the column, row, and page filter selections corresponding to the **cell** or cells in the scorecard for which this **Annotation** is applicable. This element MUST be present.

cellPath: CellpathCoordinates property, as specified in the **Annotation** complex type (section 2.2.4.18). This element MUST be present.

3.1.4.22.2.2 GetAnnotationResponse

The **GetAnnotationResponse** element specifies the result data for the **GetAnnotation WSDL operation**.

```
<xs:element name="GetAnnotationResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetAnnotationResult"
type="tns:Annotation"/>
    </xs:sequence>
  </xs:complexType>
```


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```
</xs:element>
```

GetAnnotationResult: The **Annotation** complex type object (see section 2.2.4.18) that was requested from the **server (2)**.

3.1.4.22.3 Complex Types

The following table summarizes the **XML schema** complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfTuple	Specifies an array of Tuple.
Tuple	Specifies an ordered collection of one or more members from different dimensions.

3.1.4.22.3.1 ArrayOfTuple

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfTuple** complex type specifies an array of **Tuple** (section 3.1.4.22.3.2).

```
<xs:complexType name="ArrayOfTuple" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Tuple" nillable="true"
type="tns:Tuple"/>
  </xs:sequence>
</xs:complexType>
```

Tuple: This element MUST NOT be null and MUST conform to the schema of the **Tuple** complex type (section 3.1.4.22.3.2).

3.1.4.22.3.2 Tuple

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **Tuple** complex type represents an ordered collection of one or more members from different dimensions and it contains an instance of **ArrayOfMember** (see section 2.2.4.45).

```
<xs:complexType name="Tuple" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="DimensionMembers"
type="tns:ArrayOfMember"/>
  </xs:sequence>
</xs:complexType>
```

DimensionMembers: This element MUST NOT be **null**.

3.1.4.22.4 Simple Types

None.

3.1.4.22.5 Attributes

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None.

3.1.4.22.6 Groups

None.

3.1.4.22.7 Attribute Groups

None.

3.1.4.23 GetAnnotationByID

The **GetAnnotationByID** operation retrieves an **Annotation** complex type (section 2.2.4.18) from a specified **GUID** from the **server (2)**.

The following is the **WSDL** port type specification of the **GetAnnotationByID** **WSDL operation**.

```
<wsdl:operation name="GetAnnotationByID" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetAnnotationByIDSoapIn"/>
  <wsdl:output message="tns:GetAnnotationByIDSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetAnnotationByIDSoapIn** request message (section 3.1.4.23.1.1), and the server (2) responds with a **GetAnnotationByIDSoapOut** response message (section 3.1.4.23.1.2) as follows:

- The protocol client sends a GUID that specifies the **Annotation** to be retrieved.
- The server (2) sends the corresponding **Annotation**.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.23.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetAnnotationByIDSoapIn	The request WSDL message for the **GetAnnotationByID** **WSDL operation**.
GetAnnotationByIDSoapOut	The response WSDL message for the **GetAnnotationByID** WSDL operation.

3.1.4.23.1.1 GetAnnotationByIDSoapIn

The request **WSDL message** for the **GetAnnotationByID** **WSDL operation**.

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The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetAnnotationByID
```

The **SOAP body** contains the **GetAnnotationByID** element.

3.1.4.23.1.2 GetAnnotationByIDSoapOut

The response **WSDL message** for the **GetAnnotationByID** **WSDL operation**.

The **SOAP body** contains the **GetAnnotationByIDResponse** element.

3.1.4.23.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetAnnotationByID	The input data for the **GetAnnotationByID** **WSDL operation**.
GetAnnotationByIDResponse	The result data for the **GetAnnotationByID** WSDL operation.

3.1.4.23.2.1 GetAnnotationByID

The **GetAnnotationByID** element specifies the input data for the **GetAnnotationByID** **WSDL operation**.

```
<xs:element name="GetAnnotationByID" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="annotationID"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

annotationID: A **GUID** that specifies the **Annotation** complex type (section 2.2.4.18) to be retrieved. This element MUST be present.

3.1.4.23.2.2 GetAnnotationByIDResponse

The **GetAnnotationByIDResponse** element specifies the result data for the **GetAnnotationByID** **WSDL operation**.

```
<xs:element name="GetAnnotationByIDResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetAnnotationByIDResult"
type="tns:Annotation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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GetAnnotationByIDResult: The **Annotation** complex type object (section 2.2.4.18) that was requested from the **server (2)**.

3.1.4.23.3 Complex Types

None.

3.1.4.23.4 Simple Types

None.

3.1.4.23.5 Attributes

None.

3.1.4.23.6 Groups

None.

3.1.4.23.7 Attribute Groups

None.

3.1.4.24 GetAnnotationSetting

The **Attribute Groups** operation retrieves an **AnnotationSetting** complex type object (section 3.1.4.24.3.1) that contains the annotation settings for the **server (2)**.

The following is the **WSDL** port type specification of the **GetAnnotationSetting WSDL operation**.

```
<wsdl:operation name="GetAnnotationSetting" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetAnnotationSettingSoapIn"/>
  <wsdl:output message="tns:GetAnnotationSettingSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetAnnotationSettingSoapIn** request message (section 3.1.4.24.1.1), and the server (2) responds with a **GetAnnotationSettingSoapOut** response message (section 3.1.4.24.1.2) as follows:

- The server (2) MUST retrieve an **AnnotationSetting** object.

3.1.4.24.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetAnnotationSettingSoapIn	The request WSDL message for the **GetAnnotationSetting WSDL operation**.
GetAnnotationSettingSoapOut	The response WSDL message for the **GetAnnotationSetting** WSDL operation.

3.1.4.24.1.1 GetAnnotationSettingSoapIn

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The request **WSDL message** for the **GetAnnotationSetting** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetAnnotationSetting
```

The **SOAP body** contains the **GetAnnotationSetting** element.

3.1.4.24.1.2 GetAnnotationSettingSoapOut

The response **WSDL message** for the **GetAnnotationSetting** **WSDL operation**.

The **SOAP body** contains the **GetAnnotationSettingResponse** element.

3.1.4.24.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetAnnotationSetting	The input data for the **GetAnnotationSetting** **WSDL operation**.
GetAnnotationSettingResponse	The result data for the **GetAnnotationSetting** WSDL operation.

3.1.4.24.2.1 GetAnnotationSetting

The **GetAnnotationSetting** element specifies the input data for the **GetAnnotationSetting** **WSDL operation**.

```
<xs:element name="GetAnnotationSetting" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.24.2.2 GetAnnotationSettingResponse

The **GetAnnotationSettingResponse** element specifies the result data for the **GetAnnotationSetting** **WSDL operation**.

```
<xs:element name="GetAnnotationSettingResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetAnnotationSettingResult"
type="tns:AnnotationSetting"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetAnnotationSettingResult: An **AnnotationSetting** complex type object (section 3.1.4.24.3.1) that was requested from the **server (2)**.

3.1.4.24.3 Complex Types

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The following table summarizes the **XML schema** complex type definitions that are specific to this operation.

Complex type	Description
AnnotationSetting	Specifies annotation settings for this service application.

3.1.4.24.3.1 AnnotationSetting

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **AnnotationSetting** complex type specifies annotation settings for this service application.

```
<xs:complexType name="AnnotationSetting" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:attribute name="IsAnnotationEnabled" type="xs:boolean" use="required"/>
  <xs:attribute name="IsAnnotationEnabledDefault" type="xs:boolean" use="required"/>
  <xs:attribute name="IsDeletionByAuthorEnabled" type="xs:boolean" use="required"/>
  <xs:attribute name="IsDeletionByAuthorEnabledDefault" type="xs:boolean" use="required"/>
  <xs:attribute name="MaxAnnotationAllowed" type="xs:int" use="required"/>
</xs:complexType>
```

IsAnnotationEnabled: Specifies whether annotations are enabled for scorecards; if set to **true**, annotations are enabled; otherwise, annotations are not enabled.

IsAnnotationEnabledDefault: Specifies the default value of **IsAnnotationEnabled** used by the **server (2)**. The default value is **true**.

IsDeletionByAuthorEnabled: Specifies whether annotations can be deleted by the user; if set to **true**, annotations can be deleted; otherwise, annotations cannot be deleted.

IsDeletionByAuthorEnabledDefault: Specifies the default value of **IsDeletionByAuthorEnabled** used by the server (2). The default is **true**.

MaxAnnotationAllowed: Specifies the maximum number of annotations that can be added for a scorecard. This value MUST be an integer greater than or equal to zero.

3.1.4.24.4 Simple Types

None.

3.1.4.24.5 Attributes

None.

3.1.4.24.6 Groups

None.

3.1.4.24.7 Attribute Groups

None.

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3.1.4.25 GetAsKpis

The **GetAsKpis** operation takes in an **Analysis Services** data source along with a **server-relative URL** to a **Kpi** complex type (section 2.2.4.128) **list (1)**, and returns a collection of **Kpis** as defined in the **ArrayOfKpi** complex type (see section 2.2.4.41).

The following is the **WSDL** port type specification of the **GetAsKpis WSDL operation**.

```
<wsdl:operation name="GetAsKpis" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetAsKpisSoapIn"/>
  <wsdl:output message="tns:GetAsKpisSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetAsKpisSoapIn** request message (section 3.1.4.25.1.1), and the **server (2)** responds with a **GetAsKpisSoapOut** message (section 3.1.4.25.1.2) as follows:

- The server (2) validates the data source as to whether it is a **trusted location**, along with the user's access permissions. If it is from an un-trusted location, it is added to the list (1) of untrusted data sources.
- The server (2) retrieves the **Cube** complex type object (section 2.2.4.78) represented by the data source.
- The server (2) returns the list (1) of Kpis from the **Cube**.

3.1.4.25.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetAsKpisSoapIn	The request WSDL message for the **GetAsKpis WSDL operation**.
GetAsKpisSoapOut	The response WSDL message for the **GetAsKpis** WSDL operation.

3.1.4.25.1.1 GetAsKpisSoapIn

The request **WSDL message** for the **GetAsKpis WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetAsKpis
```

The **SOAP body** contains the **GetAsKpis** element.

3.1.4.25.1.2 GetAsKpisSoapOut

The response **WSDL message** for the **GetAsKpis WSDL operation**.

The **SOAP body** contains the **GetAsKpisResponse** element.

3.1.4.25.2 Elements

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The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetAsKpis	The input data for the **GetAsKpis** **WSDL operation**.
GetAsKpisResponse	The result data for the **GetAsKpis** WSDL operation.

3.1.4.25.2.1 GetAsKpis

The **GetAsKpis** element specifies the input data for the **GetAsKpis** **WSDL operation**.

```
<xs:element name="GetAsKpis" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: This element MUST be an **Analysis Services** data source.

listUrl: This element MUST be a **server-relative URL** to the Analysis Services data source (see section 2.2.4.85) **list (1)**.

3.1.4.25.2.2 GetAsKpisResponse

The **GetAsKpisResponse** element specifies the result data for the **GetAsKpis** **WSDL operation**.

```
<xs:element name="GetAsKpisResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetAsKpisResult" type="tns:ArrayOfKpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetAsKpisResult: This element MUST return a collection of **Kpi** complex types (section 2.2.4.128), as defined in the **ArrayOfKpi** complex type (section 2.2.4.41).

3.1.4.25.3 Complex Types

None.

3.1.4.25.4 Simple Types

None.

3.1.4.25.5 Attributes

None.

3.1.4.25.6 Groups

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None.

3.1.4.25.7 Attribute Groups

None.

3.1.4.26 GetCube

The **GetCube** operation takes in a **RepositoryLocation** complex type object (section 2.2.4.161), and returns the associated **Cube** complex type object (section 2.2.4.78).

The following is the **WSDL** port type specification of the **GetCube WSDL operation**.

```
<wsdl:operation name="GetCube" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCubeSoapIn"/>
  <wsdl:output message="tns:GetCubeSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCubeSoapIn** request message (section 3.1.4.26.1.1), and the **server (2)** responds with a **GetCubeSoapOut** message (section 3.1.4.26.1.2) as follows:

- The server (2) retrieves the data source from the **RepositoryLocation**.
- The server (2) validates the data source as to whether it is a **trusted location**, along with the user's access permissions. If it is from an un-trusted location, it is added to the **list (1)** of untrusted data sources. Valid data source types include **Analysis Services** and Tabular sources.
- The server (2) returns a **Cube** complex type object (section 2.2.4.78) represented by the data source.

Exceptions:

Error code	Description
DataSourceHostNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionUnsupported	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceCubeNotFound	See Full List of Possible Error Codes (section 2.2.2.1.2).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.26.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCubeSoapIn	The request WSDL message for the **GetCube WSDL operation**.

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Message	Description
GetCubeSoapOut	The response WSDL message for the **GetCube** WSDL operation.

3.1.4.26.1.1 GetCubeSoapIn

The request **WSDL message** for the **GetCube** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCube
```

The **SOAP body** contains the **GetCube** element.

3.1.4.26.1.2 GetCubeSoapOut

The response **WSDL message** for the **GetCube** **WSDL operation**.

The **SOAP body** contains the **GetCubeResponse** element.

3.1.4.26.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetCube	The input data for the **GetCube** **WSDL operation**.
GetCubeResponse	The result data for the **GetCube** WSDL operation.

3.1.4.26.2.1 GetCube

The **GetCube** element specifies the input data for the **GetCube** **WSDL operation**.

```
<xs:element name="GetCube" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: This element MUST be a valid **RepositoryLocation** complex type (section 2.2.4.161).

3.1.4.26.2.2 GetCubeResponse

The **GetCubeResponse** element specifies the result data for the **GetCube** **WSDL operation**.

```
<xs:element name="GetCubeResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
```


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```
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetCubeResult" type="tns:Cube"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCubeResult: This element MUST return **NULL,** if input fails validation; otherwise, MUST return the **Cube** complex type (section 2.2.4.78) represented by the **RepositoryLocation** complex type (section 2.2.4.161).

3.1.4.26.3 Complex Types

None.

3.1.4.26.4 Simple Types

None.

3.1.4.26.5 Attributes

None.

3.1.4.26.6 Groups

None.

3.1.4.26.7 Attribute Groups

None.

3.1.4.27 GetCubeFromDataSource

The **GetCubeFromDataSource** operation takes in a data source object and returns the associated **Cube** complex type object section 2.2.4.78().

The following is the **WSDL** port type specification of the **GetCubeFromDataSource WSDL operation**.

```
<wsdl:operation name="GetCubeFromDataSource" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCubeFromDataSourceSoapIn"/>
  <wsdl:output message="tns:GetCubeFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCubeFromDataSourceSoapIn** request message (section 3.1.4.27.1.1), and the **server (2)** responds with a **GetCubeFromDataSourceSoapOut** message (section 3.1.4.27.1.2) as follows:

- The server (2) validates the data source as to whether it is in a **trusted location**, along with the user's access permissions. If it is from an un-trusted location, it is added to the **list (1)** of untrusted data sources. Valid data source types include **Analysis Services** and Tabular sources.
- The server (2) returns a **Cube** complex type object (section 2.2.4.78) represented by the data source.

Exceptions:

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Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceCubeNotFound	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.27.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCubeFromDataSourceSoapIn	The request WSDL message for the **GetCubeFromDataSource** **WSDL operation**.
GetCubeFromDataSourceSoapOut	The response WSDL message for the **GetCubeFromDataSource** WSDL operation.

3.1.4.27.1.1 GetCubeFromDataSourceSoapIn

The request **WSDL message** for the **GetCubeFromDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCubeFromDataSource
```

The **SOAP body** contains the **GetCubeFromDataSource** element.

3.1.4.27.1.2 GetCubeFromDataSourceSoapOut

The response **WSDL message** for the **GetCubeFromDataSource** **WSDL operation**.

The **SOAP body** contains the **GetCubeFromDataSourceResponse** element.

3.1.4.27.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetCubeFromDataSource	The input data for the **GetCubeFromDataSource** **WSDL operation**.
GetCubeFromDataSourceResponse	The result data for the **GetCubeFromDataSource** WSDL operation.

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3.1.4.27.2.1 GetCubeFromDataSource

The **GetCubeFromDataSource** element specifies the input data for the **GetCubeFromDataSource** **WSDL operation**.

```
<xs:element name="GetCubeFromDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: A **DataSource** complex type (section 2.2.4.85) to be used for the request. This element MUST be present.

3.1.4.27.2.2 GetCubeFromDataSourceResponse

The **GetCubeFromDataSourceResponse** element specifies the result data for the **GetCubeFromDataSource** **WSDL operation**.

```
<xs:element name="GetCubeFromDataSourceResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetCubeFromDataSourceResult"
type="tns:Cube"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCubeFromDataSourceResult: This element MUST return 'Null' when the Input does not match the **DataSource** complex type (section 2.2.4.85) stored on the **server (2)**, or when the Input is not read-only and the user does not have adequate permissions to open and edit the **DataSource**. Otherwise, it MUST return the **Cube** complex type (section 2.2.4.78) represented by that **DataSource**.

3.1.4.27.3 Complex Types

None.

3.1.4.27.4 Simple Types

None.

3.1.4.27.5 Attributes

None.

3.1.4.27.6 Groups

None.

3.1.4.27.7 Attribute Groups

None.

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3.1.4.28 GetCubeMetaData

The **GetCubeMetaData** operation takes in an **Analysis Services** **RepositoryLocation** complex type object (section 2.2.4.161) and returns the associated **Cube** complex type object (section 2.2.4.78).

The following is the **WSDL** port type specification of the **GetCubeMetaData** **WSDL operation**.

```
<wsdl:operation name="GetCubeMetaData" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCubeMetaDataSoapIn"/>
  <wsdl:output message="tns:GetCubeMetaDataSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCubeMetaDataSoapIn** request message (section 3.1.4.28.1.1), and the **server (2)** responds with a **GetCubeMetaDataSoapOut** message (section 3.1.4.28.1.2) as follows:

- The server (2) retrieves the data source from the **RepositoryLocation**.
- The server (2) validates whether it is a **trusted location**, along with the user's access permissions. If it is from an un-trusted location, it is added to the **list (1)** of untrusted data sources.
- The server (2) retrieves the **Cube** definition represented by the data source, and generates a generic **Cube** object with **dimensions** as defined in the **Dimension** complex type object (section 2.2.4.90) with only hierarchies and levels from the specified **Analysis Services** cube definition.

Exceptions:

Error code	Description
UnableToLoadFCODao	See Full List of Possible Error Codes (section 2.2.2.1.2).
DataSourceCubeNotFound	See Full List of Possible Error Codes (section 2.2.2.1.2).
DatabaseConnectionNotOpen	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceHostNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionUnsupported	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.28.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCubeMetaDataSoapIn	The request WSDL message for the **GetCubeMetaData** **WSDL operation**.
GetCubeMetaDataSoapOut	The response WSDL message for the **GetCubeMetaData** WSDL operation.

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3.1.4.28.1.1 GetCubeMetaDataSoapIn

The request **WSDL message** for the **GetCubeMetaData** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCubeMetaData
```

The **SOAP body** contains the **GetCubeMetaData** element.

3.1.4.28.1.2 GetCubeMetaDataSoapOut

The response **WSDL message** for the **GetCubeMetaData** **WSDL operation**.

The **SOAP body** contains the **GetCubeMetaDataResponse** element.

3.1.4.28.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetCubeMetaData	The input data for the **GetCubeMetaData** **WSDL operation**.
GetCubeMetaDataResponse	The result data for the **GetCubeMetaData** WSDL operation.

3.1.4.28.2.1 GetCubeMetaData

The **GetCubeMetaData** element specifies the input data for the **GetCubeMetaData** **WSDL operation**.

```
<xs:element name="GetCubeMetaData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: This element MUST be an **Analysis Services** data source **RepositoryLocation** complex type (section 2.2.4.161).

3.1.4.28.2.2 GetCubeMetaDataResponse

The **GetCubeMetaDataResponse** element specifies the result data for the **GetCubeMetaData** **WSDL operation**.

```
<xs:element name="GetCubeMetaDataResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetCubeMetaDataResult" type="tns:Cube"/>
```


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```
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCubeMetaDataResult: This element MUST return the **Cube** complex type object (section 2.2.4.78) associated with the **RepositoryLocation** complex type (section 2.2.4.161).

3.1.4.28.3 Complex Types

None.

3.1.4.28.4 Simple Types

None.

3.1.4.28.5 Attributes

None.

3.1.4.28.6 Groups

None.

3.1.4.28.7 Attribute Groups

None.

3.1.4.29 GetCubeMetaDataForDataSource

The **GetCubeMetaDataForDataSource** operation takes in an **Analysis Services** data source object and returns the associated **Cube** complex type object (section 2.2.4.78). This operation is valid for Analysis Services data sources only.

The following is the **WSDL** port type specification of the **GetCubeMetaDataForDataSource WSDL operation**.

```
<wsdl:operation name="GetCubeMetaDataForDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCubeMetaDataForDataSourceSoapIn"/>
  <wsdl:output message="tns:GetCubeMetaDataForDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCubeMetaDataForDataSourceSoapIn** request message (section 3.1.4.29.1.1), and the **server (2)** responds with a **GetCubeMetaDataForDataSourceSoapOut** message (section 3.1.4.29.1.2) as follows:

- The server (2) validates whether it is a trusted data source, along with the user's access permissions. If it is from an un-trusted location, it is added to the **list (1)** of untrusted data sources.
- The server (2) retrieves the **Cube** definition represented by the data source, and generates a generic **Cube** complex type object (section 2.2.4.78) with **dimensions** as defined in the **Dimension** complex type object (section 2.2.4.90) from the **Analysis Services cube** definition.

Exceptions:

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Error code	Description
UnableToLoadFCODao	See Full List of Possible Error Codes (section 2.2.2.1.2).
DataSourceCubeNotFound	See Full List of Possible Error Codes (section 2.2.2.1.2).
DatabaseConnectionNotOpen	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceHostNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionUnsupported	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.29.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCubeMetaDataForDataSourceSoapIn	The request WSDL message for the **GetCubeMetaDataForDataSource** **WSDL operation**.
GetCubeMetaDataForDataSourceSoapOut	The response WSDL message for the **GetCubeMetaDataForDataSource** WSDL operation.

3.1.4.29.1.1 GetCubeMetaDataForDataSourceSoapIn

The request **WSDL message** for the **GetCubeMetaDataForDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCubeMetaDataForDataSource
```

The **SOAP body** contains the **GetCubeMetaDataForDataSource** element.

3.1.4.29.1.2 GetCubeMetaDataForDataSourceSoapOut

The response **WSDL message** for the **GetCubeMetaDataForDataSource** **WSDL operation**.

The **SOAP body** contains the **GetCubeMetaDataForDataSourceResponse** element.

3.1.4.29.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

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Element	Description
GetCubeMetaDataForDataSource	The input data for the **GetCubeMetaDataForDataSource** **WSDL operation**.
GetCubeMetaDataForDataSourceResponse	The result data for the **GetCubeMetaDataForDataSource** WSDL operation.

3.1.4.29.2.1 GetCubeMetaDataForDataSource

The **GetCubeMetaDataForDataSource** element specifies the input data for the **GetCubeMetaDataForDataSource** **WSDL operation**.

```
<xs:element name="GetCubeMetaDataForDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: This element MUST be an **Analysis Services** data source, as specified in section 2.2.4.85.

3.1.4.29.2.2 GetCubeMetaDataForDataSourceResponse

The **GetCubeMetaDataForDataSourceResponse** element specifies the result data for the **GetCubeMetaDataForDataSource** **WSDL operation**.

```
<xs:element name="GetCubeMetaDataForDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetCubeMetaDataForDataSourceResult"
type="tns:Cube"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCubeMetaDataForDataSourceResult: This element MUST return the **Cube** complex type object (section 2.2.4.78) associated with the specified data source.

3.1.4.29.3 Complex Types

None.

3.1.4.29.4 Simple Types

None.

3.1.4.29.5 Attributes

None.

3.1.4.29.6 Groups

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None.

3.1.4.29.7 Attribute Groups

None.

3.1.4.30 GetCubeNameInfos

The **GetCubeNameInfos** operation retrieves an **ArraryOfNameInfo** complex type (section 2.2.4.48) that describes the **cubes** of the **data source (1)**.

The following is the **WSDL** port type specification of the **GetCubeNameInfos WSDL operation**.

```
<wsdl:operation name="GetCubeNameInfos" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCubeNameInfosSoapIn"/>
  <wsdl:output message="tns:GetCubeNameInfosSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCubeNameInfoSoapIn** request message (section 3.1.4.30.1.1), and the **server (2)** responds with a **GetCubeNameInfoSoapOut** response message (section 3.1.4.30.1.2) as follows:

- The server (2) receives a data source (1).
- The server (2) sends the **NameInfo** complex type object (section 2.2.4.149) for each of the corresponding cubes.

Exceptions:

Error code	Description
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionFailed	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.30.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCubeNameInfosSoapIn	The request WSDL message for the **GetCubeNameInfos WSDL operation**.
GetCubeNameInfosSoapOut	The response WSDL message for the **GetCubeNameInfos** WSDL operation.

3.1.4.30.1.1 GetCubeNameInfosSoapIn

The request **WSDL message** for the **GetCubeNameInfos WSDL operation**.

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The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCubeNameInfos
```

The **SOAP body** contains the **GetCubeNameInfos** element.

3.1.4.30.1.2 GetCubeNameInfosSoapOut

The response **WSDL message** for the **GetCubeNameInfos WSDL operation**.

The **SOAP body** contains the **GetCubeNameInfosResponse** element.

3.1.4.30.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetCubeNameInfos	The input data for the **GetCubeNameInfos WSDL operation**.
GetCubeNameInfosResponse	The result data for the **GetCubeNameInfos** WSDL operation.

3.1.4.30.2.1 GetCubeNameInfos

The **GetCubeNameInfos** element specifies the input data for the **GetCubeNameInfos WSDL operation**.

```
<xs:element name="GetCubeNameInfos" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **data source (1)**. This element MUST be present.

3.1.4.30.2.2 GetCubeNameInfosResponse

The **GetCubeNameInfosResponse** element specifies the result data for the **GetCubeNameInfos WSDL operation**.

```
<xs:element name="GetCubeNameInfosResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetCubeNameInfosResult"
type="tns:ArrayOfNameInfo"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCubeNameInfosResult: An **ArrayOfNameInfo** complex type (section 2.2.4.48). This element MUST be present.

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3.1.4.30.3 Complex Types

None.

3.1.4.30.4 Simple Types

None.

3.1.4.30.5 Attributes

None.

3.1.4.30.6 Groups

None.

3.1.4.30.7 Attribute Groups

None.

3.1.4.31 GetCurrentCultureLcid

The **GetCurrentCulturLcid** operation retrieves the current culture locale identifier.

The following is the **WSDL** port type specification of the **GetCurrentCultureLcid WSDL operation**.

```
<wsdl:operation name="GetCurrentCultureLcid" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCurrentCultureLcidSoapIn"/>
  <wsdl:output message="tns:GetCurrentCultureLcidSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCurrentCultureLcidSoapIn** request message (section 3.1.4.31.1.1), and the **server (2)** responds with a **GetCurrentCultureLcidSoapOut** response message (section 3.1.4.31.1.2) as follows:

- The server (2) MUST respond by retrieving the current culture locale identifier.
- If there was an application error on the server (2) during the operation, the server (2) MUST return a **SOAP fault** response. The error code MUST be one of the values specified in section 2.2.2.1.2.

3.1.4.31.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCurrentCultureLcidSoapIn	The request WSDL message for the **GetCurrentCultureLcid WSDL operation**.
GetCurrentCultureLcidSoapOut	The response WSDL message for the **GetCurrentCultureLcid** WSDL operation.

3.1.4.31.1.1 GetCurrentCultureLcidSoapIn

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The request **WSDL message** for the **GetCurrentCultureLcid** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCurrentCultureLcid
```

The **SOAP body** contains the **GetCurrentCultureLcid** element.

3.1.4.31.1.2 GetCurrentCultureLcidSoapOut

The response **WSDL message** for the **GetCurrentCultureLcid** **WSDL operation**.

The **SOAP body** contains the **GetCurrentCultureLcidResponse** element.

3.1.4.31.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetCurrentCultureLcid	The input data for the **GetCurrentCultureLcid** **WSDL operation**.
GetCurrentCultureLcidResponse	The result data for the **GetCurrentCultureLcid** WSDL operation.

3.1.4.31.2.1 GetCurrentCultureLcid

The **GetCurrentCultureLcid** element specifies the input data for the **GetCurrentCultureLcid** **WSDL operation**.

```
<xs:element name="GetCurrentCultureLcid" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.31.2.2 GetCurrentCultureLcidResponse

The **GetCurrentCultureLcidResponse** element specifies the result data for the **GetCurrentCultureLcid** **WSDL operation**.

```
<xs:element name="GetCurrentCultureLcidResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="GetCurrentCultureLcidResult"
type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCurrentCultureLcidResult: An integer representing the current culture locale identifier, which determines how dates, times, numbers, currencies, calendar preferences, input methods, and sorting preferences are formatted.

3.1.4.31.3 Complex Types

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None.

3.1.4.31.4 Simple Types

None.

3.1.4.31.5 Attributes

None.

3.1.4.31.6 Groups

None.

3.1.4.31.7 Attribute Groups

None.

3.1.4.32 GetCurrentUserInfo

The **GetCurrentUserInfo** operation retrieves the user name and display name information of the **current user**.

The following is the **WSDL** port type specification of the **GetCurrentUserInfo WSDL operation**.

```
<wsdl:operation name="GetCurrentUserInfo" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetCurrentUserInfoSoapIn"/>
  <wsdl:output message="tns:GetCurrentUserInfoSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetCurrentUserInfoSoapIn** request message (section 3.1.4.32.1.1), and the **server (2)** responds with a **GetCurrentUserInfoSoapOut** response message (section 3.1.4.32.1.2) as follows:

- The protocol client MUST provide out parameters to hold the current user name and display name.
- The server (2) MUST set those parameters to the current user name and user display name.
- In the event of an application error, the server (2) MUST set the current user name to the string "i:Anonymous" and user display name to the string "Anonymous".

3.1.4.32.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetCurrentUserInfoSoapIn	The request WSDL message for the **GetCurrentUserInfo WSDL operation**.
GetCurrentUserInfoSoapOut	The response WSDL message for the **GetCurrentUserInfo** WSDL operation.

3.1.4.32.1.1 GetCurrentUserInfoSoapIn

The request **WSDL message** for the **GetCurrentUserInfo WSDL operation**.

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The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetCurrentUserInfo
```

The **SOAP body** contains the **GetCurrentUserInfo** element.

3.1.4.32.1.2 GetCurrentUserInfoSoapOut

The response **WSDL message** for the **GetCurrentUserInfo** **WSDL operation**.

The **SOAP body** contains the **GetCurrentUserInfoResponse** element.

3.1.4.32.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetCurrentUserInfo	The input data for the **GetCurrentUserInfo** **WSDL operation**.
GetCurrentUserInfoResponse	The result data for the **GetCurrentUserInfo** WSDL operation.

3.1.4.32.2.1 GetCurrentUserInfo

The **GetCurrentUserInfo** element specifies the input data for the **GetCurrentUserInfo** **WSDL operation**.

```
<xs:element name="GetCurrentUserInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.32.2.2 GetCurrentUserInfoResponse

The **GetCurrentUserInfoResponse** element specifies the result data for the **GetCurrentUserInfo** **WSDL operation**.

```
<xs:element name="GetCurrentUserInfoResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="userName" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="userDisplayName" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

userName: User name information of **current user**.

userDisplayName: Display name information of current user.

3.1.4.32.3 Complex Types

None.

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3.1.4.32.4 Simple Types

None.

3.1.4.32.5 Attributes

None.

3.1.4.32.6 Groups

None.

3.1.4.32.7 Attribute Groups

None.

3.1.4.33 GetDashboard

The **GetDashboard** operation retrieves a **dashboard**.

The following is the **WSDL** port type specification of the **GetDashboard WSDL operation**.

```
<wsdl:operation name="GetDashboard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetDashboardSoapIn"/>
  <wsdl:output message="tns:GetDashboardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetDashboardSoapIn** request message (section 3.1.4.33.1.1), and the **server (2)** responds with a **GetDashboardSoapOut** response message (section 3.1.4.33.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the dashboard to be retrieved.
- The server (2) responds with the corresponding dashboard.
- In the event the dashboard cannot be retrieved, the server (2) SHOULD<28> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.33.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

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Message	Description
GetDashboardSoapIn	The request WSDL message for the **GetDashboard** **WSDL operation**.
GetDashboardSoapOut	The response WSDL message for the **GetDashboard** WSDL operation.

3.1.4.33.1.1 GetDashboardSoapIn

The request **WSDL message** for the **GetDashboard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetDashboard
```

The **SOAP body** contains the **GetDashboard** element.

3.1.4.33.1.2 GetDashboardSoapOut

The response **WSDL message** for the **GetDashboard** **WSDL operation**.

The **SOAP body** contains the **GetDashboardResponse** element.

3.1.4.33.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetDashboard	The input data for the **GetDashboard** **WSDL operation**.
GetDashboardResponse	The result data for the **GetDashboard** WSDL operation.

3.1.4.33.2.1 GetDashboard

The **GetDashboard** element specifies the input data for the **GetDashboard** **WSDL operation**.

```
<xs:element name="GetDashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. The **ItemUrl** property MUST contain a valid **URL**.

3.1.4.33.2.2 GetDashboardResponse

The **GetDashboardResponse** element specifies the result data for the **GetDashboard** **WSDL operation**.

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```
<xs:element name="GetDashboardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetDashboardResult"
type="tns:Dashboard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetDashboardResult: A **Dashboard** complex type, as specified in section 2.2.4.79. This element SHOULD be present.

3.1.4.33.3 Complex Types

None.

3.1.4.33.4 Simple Types

None.

3.1.4.33.5 Attributes

None.

3.1.4.33.6 Groups

None.

3.1.4.33.7 Attribute Groups

None.

3.1.4.34 GetDatabaseNamesFromDataSource

The **GetDatabaseNamesFromDataSource** operation retrieves an array of database names associated with the **data source (1)**.

The following is the **WSDL** port type specification of the **GetDatabaseNamesFromDataSource WSDL operation**.

```
<wsdl:operation name="GetDatabaseNamesFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetDatabaseNamesFromDataSourceSoapIn"/>
  <wsdl:output message="tns:GetDatabaseNamesFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetDatabaseNamesSoapIn** request message (section 3.1.4.34.1.1), and the **server (2)** responds with a **GetDatabaseNamesSoapOut** response message (section 3.1.4.34.1.2) as follows:

- The server (2) receives a **DataSource** complex type (section 2.2.4.79).
- The server (2) returns the name for each database associated with the data source (2).

Exceptions:

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Error code	Description
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionFailed	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.34.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetDatabaseNamesFromDataSourceSoapIn	The request WSDL message for the **GetDatabaseNamesFromDataSource WSDL operation**.
GetDatabaseNamesFromDataSourceSoapOut	The response WSDL message for the **GetDatabaseNamesFromDataSource** WSDL operation.

3.1.4.34.1.1 GetDatabaseNamesFromDataSourceSoapIn

The request **WSDL message** for the **GetDatabaseNamesFromDataSource WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetDatabaseNamesFromDataSource
```

The **SOAP body** contains the **GetDatabaseNamesFromDataSource** element.

3.1.4.34.1.2 GetDatabaseNamesFromDataSourceSoapOut

The response **WSDL message** for the **GetDatabaseNamesFromDataSource WSDL operation**.

The **SOAP body** contains the **GetDatabaseNamesFromDataSourceResponse** element.

3.1.4.34.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetDatabaseNamesFromDataSource	The input data for the **GetDatabaseNamesFromDataSource WSDL operation**.
GetDatabaseNamesFromDataSourceResponse	The result data for the **GetDatabaseNamesFromDataSource** WSDL operation.

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3.1.4.34.2.1 GetDatabaseNamesFromDataSource

The **GetDatabaseNamesFromDataSource** element specifies the input data for the **GetDatabaseNamesFromDataSource** **WSDL operation**.

```
<xs:element name="GetDatabaseNamesFromDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **data source (1)**. This element MUST be present.

3.1.4.34.2.2 GetDatabaseNamesFromDataSourceResponse

The **GetDatabaseNamesFromDataSourceResponse** element specifies the result data for the **GetDatabaseNamesFromDataSource** **WSDL operation**.

```
<xs:element name="GetDatabaseNamesFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetDatabaseNamesFromDataSourceResult"
type="tns:ArrayOfString"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetDatabaseNamesFromDataSourceResult: An array of strings. This element MUST be present.

3.1.4.34.3 Complex Types

None.

3.1.4.34.4 Simple Types

None.

3.1.4.34.5 Attributes

None.

3.1.4.34.6 Groups

None.

3.1.4.34.7 Attribute Groups

None.

3.1.4.35 GetDataSource

The **GetDataSource** operation retrieves a **data source (1)**.

The following is the **WSDL** port type specification of the **GetDataSource** **WSDL operation**.

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```
<wsdl:operation name="GetDataSource" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetDataSourceSoapIn"/>
  <wsdl:output message="tns:GetDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetDataSourceSoapIn** request message (section 3.1.4.35.1.1), and the **server (2)** responds with a **GetDataSourceSoapOut** response message (section 3.1.4.35.1.2) as follows:

- Receives a **RepositoryLocation** complex type (section 2.2.4.161) for the data source (1) to be retrieved.
- The server (2) sends the corresponding data source (1).
- In the event that a data source (1) cannot be retrieved, the server (2) SHOULD<29> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.35.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetDataSourceSoapIn	The request WSDL message for the **GetDataSource** **WSDL operation**.
GetDataSourceSoapOut	The response WSDL message for the **GetDataSource** WSDL operation.

3.1.4.35.1.1 GetDataSourceSoapIn

The request **WSDL message** for the **GetDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetDataSource
```

The **SOAP body** contains the **GetDataSource** element.

3.1.4.35.1.2 GetDataSourceSoapOut

The response **WSDL message** for the **GetDataSource** **WSDL operation**.

The **SOAP body** contains the **GetDataSourceResponse** element.

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3.1.4.35.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetDataSource	The input data for the **GetDataSource** **WSDL operation**.
GetDataSourceResponse	The result data for the **GetDataSource** WSDL operation.

3.1.4.35.2.1 GetDataSource

The **GetDataSource** element specifies the input data for the **GetDataSource** **WSDL operation**.

```
<xs:element name="GetDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type (section 2.2.4.161) of a data source. This element MUST be present.

3.1.4.35.2.2 GetDataSourceResponse

The **GetDataSourceResponse** element specifies the result data for the **GetDataSource** **WSDL operation**.

```
<xs:element name="GetDataSourceResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetDataSourceResult"
type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetDataSourceResult: A **data source (1)**, as specified in the **DataSource** complex type (section 2.2.4.85). This element MUST be present.

3.1.4.35.3 Complex Types

None.

3.1.4.35.4 Simple Types

None.

3.1.4.35.5 Attributes

None.

3.1.4.35.6 Groups

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None.

3.1.4.35.7 Attribute Groups

None.

3.1.4.36 GetDependentElements

The **GetDependentElements** operation retrieves from the **server (2)** all **FirstClassElement** complex types (section 2.2.4.99) associated with a **list (1)** of repository locations. In addition, all **FirstClassElements** that are related by reference are also included in the response. For example, for a requested scorecard, all **Kpis**, **Indicators**, and **DataSources** that the scorecard depends on will also be retrieved.

The following is the **WSDL** port type specification of the **GetDependentElements WSDL operation**.

```
<wsdl:operation name="GetDependentElements" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetDependentElementsSoapIn"/>
  <wsdl:output message="tns:GetDependentElementsSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetDependentElementsSoapIn** request message (section 3.1.4.36.1.1), and the server (2) responds with a **GetDependentElementsSoapOut** response message (section 3.1.4.36.1.2) as follows:

- The protocol client sends a list (1) of **RepositoryLocation** complex types (section 2.2.4.161).
- The server (2) responds with a **DependentElementInfo** complex type (section 3.1.4.36.3.2) containing all **FirstClassElement items** specified by the list of **RepositoryLocations**, all associated sub-items, and all containing list **URLs**.
- In the event that all **FirstClassElement** items and sub-items referenced by the list cannot be retrieved, the server (2) SHOULD<30> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.36.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetDependentElementsSoapIn	The request WSDL message for the **GetDependentElements WSDL operation**.
GetDependentElementsSoapOut	The response WSDL message for the **GetDependentElements** WSDL

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Message	Description
	operation.

3.1.4.36.1.1 GetDependentElementsSoapIn

The request **WSDL message** for the **GetDependentElements WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetDependentElements
```

The **SOAP body** contains the **GetDependentElements** element.

3.1.4.36.1.2 GetDependentElementsSoapOut

The response **WSDL message** for the **GetDependentElements WSDL operation**.

The **SOAP body** contains the **GetDependentElementsResponse** element.

3.1.4.36.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetDependentElements	The input data for the **GetDependentElements WSDL operation**.
GetDependentElementsResponse	The result data for the **GetDependentElements** WSDL operation.

3.1.4.36.2.1 GetDependentElements

The **GetDependentElements** element specifies the input data for the **GetDependentElements WSDL operation**.

```
<xs:element name="GetDependentElements" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="missingItems"
type="tns:ArrayOfRepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

missingItems: An **ArrayOfRepositoryLocation** complex type, as specified in section 3.1.4.36.3.1. This element specifies which **items** to retrieve.

3.1.4.36.2.2 GetDependentElementsResponse

The **GetDependentElementsResponse** element specifies the result data for the **GetDependentElements WSDL operation**.

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```
<xs:element name="GetDependentElementsResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetDependentElementsResult"
type="tns:DependentElementInfo"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetDependentElementsResult: A **DependentElementInfo** complex type, as specified in section 3.1.4.36.3.2. This element MUST be present.

3.1.4.36.3 Complex Types

The following table summarizes the **XML schema** complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfRepositoryList	Specifies an array of RepositoryList elements.
ArrayOfRepositoryLocation	Specifies an array of **RepositoryLocation.**
DependentElementInfo	Contains elements and associated list references.
ListLocation	Contains the necessary information to identify a **list (1)** on the **server (2)**.
RepositoryList	Specifies a location where **FirstClassElement** (section 2.2.4.99) **items** are stored on the server.

3.1.4.36.3.1 ArrayOfRepositoryLocation

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfRepositoryLocation** complex type specifies an array of **RepositoryLocation** complex types (section 2.2.4.161).

```
<xs:complexType name="ArrayOfRepositoryLocation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="RepositoryLocation" nillable="true"
type="tns:RepositoryLocation"/>
  </xs:sequence>
</xs:complexType>
```

RepositoryLocation: This element MUST NOT be null and MUST conform to the schema of the **RepositoryLocation**.

3.1.4.36.3.2 DependentElementInfo

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **DependentElementInfo** complex type contains elements and associated list references.

```
<xs:complexType name="DependentElementInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="DependentLists"
type="tns:ArrayOfRepositoryList"/>
```


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```
    <xs:element minOccurs="0" maxOccurs="1" name="DependentElements"
type="tns:ArrayOfFirstClassElement"/>
  </xs:sequence>
</xs:complexType>
```

DependentLists: An **ArrayOfRepositoryList** complex type (section 3.1.4.36.3.3). A collection of **lists (1)** associated with the **items** in **DependentElements**.

DependentElements: An **ArrayOfFirstClassElement** complex type (section 2.2.4.34). A collection of **FirstClassElement** complex type items (section 2.2.4.99), and all items associated through **FirstClassElement** references.

3.1.4.36.3.3 ArrayOfRepositoryList

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfRepositoryList** complex type specifies an array of **RepositoryList** elements (section 3.1.4.36.3.4).

```
<xs:complexType name="ArrayOfRepositoryList" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="RepositoryList" nillable="true"
type="tns:RepositoryList"/>
  </xs:sequence>
</xs:complexType>
```

RepositoryList: This element MUST NOT be null and MUST conform to the schema of the **RepositoryList** complex type (section 3.1.4.36.3.4).

3.1.4.36.3.4 RepositoryList

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **RepositoryList** complex type specifies a location where **FirstClassElement** complex type **items** (section 2.2.4.99) are stored on the **server (2)**.

```
<xs:complexType name="RepositoryList" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Location" type="tns:ListLocation"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SupportedTypes" type="tns:FCOContentType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Title" type="xs:string"/>
    <xs:element xmlns:s1="http://microsoft.com/wsdl/types/" minOccurs="1" maxOccurs="1"
name="ListId" type="s1:guid"/>
  </xs:sequence>
</xs:complexType>
```

Location: Specifies the **ListLocation** complex type (section 3.1.4.36.3.5). This element MUST be present.

SupportedTypes: The content types that are supported in the form of the **FCOContentType** simple type (section 3.1.4.36.4.1).

Title: Specifies the title for the **RepositoryList**. This element MUST be present. The value MUST NOT be empty and MUST NOT consist of only **whitespace** characters.

ListId: Specifies the identity for this **RepositoryList**. This element MUST be formatted as a **GUID**.

3.1.4.36.3.5 ListLocation

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Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ListLocation** complex type contains the necessary information to identify a **list (1)** on the **server (2)**.

```
<xs:complexType name="ListLocation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="SiteUrl" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ListUrl" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

SiteUrl: The url for the server where the list (1) is located. The attribute MUST be a valid [RFC1738] URL.

ListUrl: The location on the server where the list (1) is located. MUST be present. MUST be a valid URL as specified in [RFC1738].

3.1.4.36.4 Simple Types

The following table summarizes the **XML schema** simple type definitions that are specific to this operation.

Simple type	Description
FCOContentType	Specifies the type of an **FCO**.

3.1.4.36.4.1 FCOContentType

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **FCOContentType** simple type specifies the type of an **FCO**.

```
<xs:simpleType name="FCOContentType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="PpsDashboard"/>
        <xs:enumeration value="PpsScorecard"/>
        <xs:enumeration value="PpsKpi"/>
        <xs:enumeration value="PpsReportView"/>
        <xs:enumeration value="PpsIndicator"/>
        <xs:enumeration value="PpsDataSource"/>
        <xs:enumeration value="PpsFilter"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **FCOContentType** simple type.

Value	Meaning
None	The type of object is unknown.
PpsDashboard	The object is a Dashboard.

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Value	Meaning
PpsScorecard	The object is a Scorecard.
PpsKpi	The object is a Kpi.
PpsReportView	The object is a ReportView.
PpsIndicator	The object is an Indicator.
PpsDataSource	The object is a DataSource.
PpsFilter	The object is a Filter.

3.1.4.36.5 Attributes

None.

3.1.4.36.6 Groups

None.

3.1.4.36.7 Attribute Groups

None.

3.1.4.37 GetDimensions

The **GetDimensions** operation retrieves an array of **dimension** objects.

The following is the **WSDL** port type specification of the **GetDimensions WSDL operation**.

```
<wsdl:operation name="GetDimensions" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetDimensionsSoapIn"/>
  <wsdl:output message="tns:GetDimensionsSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetDimensionsSoapIn** request message (section 3.1.4.37.1.1), and the **server (2)** responds with a **GetDimensionsSoapOut** response message (section 3.1.4.37.1.2) as follows:

- Receives a **RepositoryLocation** complex type (section 2.2.4.161) for the associated **data source (1)**.
- The server (2) sends the corresponding **ArrayOfDimension** complex type (section 2.2.4.32).

Exceptions:

Error code	Description
DataSourceConnectionFailed	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceHostNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionUnsupported	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.37.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetDimensionsSoapIn	The request WSDL message for the **GetDimensions** **WSDL operation**.
GetDimensionsSoapOut	The response WSDL message for the **GetDimensions** WSDL operation.

3.1.4.37.1.1 GetDimensionsSoapIn

The request **WSDL message** for the **GetDimensions** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetDimensions
```

The **SOAP body** contains the **GetDimensions** element.

3.1.4.37.1.2 GetDimensionsSoapOut

The response **WSDL message** for the **GetDimensions** **WSDL operation**.

The **SOAP body** contains the **GetDimensionsResponse** element.

3.1.4.37.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetDimensions	The input data for the **GetDimensions** **WSDL operation**.
GetDimensionsResponse	The result data for the **GetDimensions** WSDL operation.

3.1.4.37.2.1 GetDimensions

The **GetDimensions** element specifies the input data for the **GetDimensions** **WSDL operation**.

```
<xs:element name="GetDimensions" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
```


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```
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: A **RepositoryLocation** complex type (section 2.2.4.161). This element MUST be present.

3.1.4.37.2.2 GetDimensionsResponse

The **GetDimensionsResponse** element specifies the result data for the **GetDimensions WSDL operation**.

```
<xs:element name="GetDimensionsResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetDimensionsResult"
type="tns:ArrayOfDimension"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetDimensionsResult: An **ArrayOfDimension** complex type (section 2.2.4.32). This element MUST be present.

3.1.4.37.3 Complex Types

None.

3.1.4.37.4 Simple Types

None.

3.1.4.37.5 Attributes

None.

3.1.4.37.6 Groups

None.

3.1.4.37.7 Attribute Groups

None.

3.1.4.38 GetDimensionsFromDataSource

The **GetDimensionsFromDataSource** operation retrieves an array of **dimension** objects (see section 2.2.4.90).

The following is the **WSDL** port type specification of the **GetDimensionsFromDataSource WSDL operation**.

```
<wsdl:operation name="GetDimensionsFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetDimensionsFromDataSourceSoapIn"/>
```


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```
    <wsdl:output message="tns:GetDimensionsFromDataSourceSoapOut"/>
  </wsdl:operation>
```

The protocol client sends a **GetDimensionsFromDataSourceSoapIn** request message (section 3.1.4.38.1.1), and the **server (2)** responds with a **GetDimensionsFromDataSourceSoapOut** response message (section 3.1.4.38.1.2) as follows:

- Receives a **DataSource** complex type (section 2.2.4.85).
- The server (2) sends the corresponding **ArrayOfDimension** complex type (section 2.2.4.32).

Exceptions:

Error code	Description
DataSourceConnectionFailed	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceHostNotFound	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionUnsupported	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceDatabaseNotFound	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.38.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetDimensionsFromDataSourceSoapIn	The request WSDL message for the **GetDimensionsFromDataSource** **WSDL operation**.
GetDimensionsFromDataSourceSoapOut	The response WSDL message for the **GetDimensionsFromDataSource** WSDL operation.

3.1.4.38.1.1 GetDimensionsFromDataSourceSoapIn

The request **WSDL message** for the **GetDimensionsFromDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetDimensionsFromDataSource
```

The **SOAP body** contains the **GetDimensionsFromDataSource** element.

3.1.4.38.1.2 GetDimensionsFromDataSourceSoapOut

The response **WSDL message** for the **GetDimensionsFromDataSource** **WSDL operation**.

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The **SOAP body** contains the **GetDimensionsFromDataSourceResponse** element.

3.1.4.38.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetDimensionsFromDataSource	The input data for the **GetDimensionsFromDataSource** **WSDL operation**.
GetDimensionsFromDataSourceResponse	The result data for the **GetDimensionsFromDataSource** WSDL operation.

3.1.4.38.2.1 GetDimensionsFromDataSource

The **GetDimensionsFromDataSource** element specifies the input data for the **GetDimensionsFromDataSource** **WSDL operation**.

```
<xs:element name="GetDimensionsFromDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: A **data source (1)**, as specified in section 2.2.4.85. This element MUST be present.

3.1.4.38.2.2 GetDimensionsFromDataSourceResponse

The **GetDimensionsFromDataSourceResponse** element specifies the result data for the **GetDimensionsFromDataSource** **WSDL operation**.

```
<xs:element name="GetDimensionsFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetDimensionsFromDataSourceResult"
type="tns:ArrayOfDimension"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetDimensionsFromDataSourceResult: An **ArrayOfDimension** complex type (section 2.2.4.32). This element MUST be present.

3.1.4.38.3 Complex Types

None.

3.1.4.38.4 Simple Types

None.

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3.1.4.38.5 Attributes

None.

3.1.4.38.6 Groups

None.

3.1.4.38.7 Attribute Groups

None.

3.1.4.39 GetFilter

The **GetFilter** operation retrieves a **Filter** complex type (section 2.2.4.98).

The following is the **WSDL** port type specification of the **GetFilter** **WSDL operation**.

```
<wsdl:operation name="GetFilter" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetFilterSoapIn"/>
  <wsdl:output message="tns:GetFilterSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetFilterSoapIn** request message (section 3.1.4.39.1.1), and the **server (2)** responds with a **GetFilterSoapOut** response message (section 3.1.4.39.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the **Filter** to be retrieved.
- The server (2) responds with the corresponding **Filter**.
- In the event the **Filter** cannot be retrieved, the server (2) SHOULD<31> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.39.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetFilterSoapIn	The request WSDL message for the **GetFilter** **WSDL operation**.
GetFilterSoapOut	The response WSDL message for the **GetFilter** WSDL operation.

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3.1.4.39.1.1 GetFilterSoapIn

The request **WSDL message** for the **GetFilter** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetFilter
```

The **SOAP body** contains the **GetFilter** element.

3.1.4.39.1.2 GetFilterSoapOut

The response **WSDL message** for the **GetFilter** **WSDL operation**.

The **SOAP body** contains the **GetFilterResponse** element.

3.1.4.39.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetFilter	The input data for the **GetFilter** **WSDL operation**.
GetFilterResponse	The result data for the **GetFilter** WSDL operation.

3.1.4.39.2.1 GetFilter

The **GetFilter** element specifies the input data for the **GetFilter** **WSDL operation**.

```
<xs:element name="GetFilter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. The **ItemUrl** property MUST contain a valid **URL**.

3.1.4.39.2.2 GetFilterResponse

The **GetFilterResponse** element specifies the result data for the **GetFilter** **WSDL operation**.

```
<xs:element name="GetFilterResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>

      <xs:element minOccurs="0" maxOccurs="1" name="GetFilterResult" type="tns:Filter"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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GetFilterResult: A **Filter** complex type, as specified in section 2.2.4.98. This element SHOULD be present.

3.1.4.39.3 Complex Types

None.

3.1.4.39.4 Simple Types

None.

3.1.4.39.5 Attributes

None.

3.1.4.39.6 Groups

None.

3.1.4.39.7 Attribute Groups

None.

3.1.4.40 GetIndicator

The **GetIndicator** operation retrieves an **Indicator** complex type (section 2.2.4.125) from the **server (2)**.

The following is the **WSDL** port type specification of the **GetIndicator WSDL operation**.

```
<wsdl:operation name="GetIndicator" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetIndicatorSoapIn"/>
  <wsdl:output message="tns:GetIndicatorSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetIndicatorSoapIn** request message (section 3.1.4.40.1.1), and the server (2) responds with a **GetIndicatorSoapOut** response message (section 3.1.4.40.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the **Indicator** to be retrieved.
- The server (2) sends the corresponding **Indicator**.
- In the event that an **indicator** cannot be retrieved, the server (2) SHOULD<32> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

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3.1.4.40.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetIndicatorSoapIn	The request WSDL message for the **GetIndicator** **WSDL operation**.
GetIndicatorSoapOut	The response WSDL message for the **GetIndicator** WSDL operation.

3.1.4.40.1.1 GetIndicatorSoapIn

The request **WSDL message** for the **GetIndicator** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetIndicator
```

The **SOAP body** contains the **GetIndicator** element.

3.1.4.40.1.2 GetIndicatorSoapOut

The response **WSDL message** for the **GetIndicator** **WSDL operation**.

The **SOAP body** contains the **GetIndicatorResponse** element.

3.1.4.40.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetIndicator	The input data for the **GetIndicator** **WSDL operation**.
GetIndicatorResponse	The result data for the **GetIndicator** WSDL operation.

3.1.4.40.2.1 GetIndicator

The **GetIndicator** element specifies the input data for the **GetIndicator** **WSDL operation**.

```
<xs:element name="GetIndicator" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>

    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: The **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of the indicator on the **server (2)**.

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- It MUST be present.
- The **ItemUrl** property MUST be set to the location of the **indicator**.

3.1.4.40.2.2 GetIndicatorResponse

The **GetIndicatorResponse** element specifies the result data for the **GetIndicator** **WSDL operation**.

```
<xs:element name="GetIndicatorResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetIndicatorResult"
type="tns:Indicator"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetIndicatorResult: The **Indicator** complex type object (section 2.2.4.125) that was requested from the **server (2)**.

3.1.4.40.3 Complex Types

None.

3.1.4.40.4 Simple Types

None.

3.1.4.40.5 Attributes

None.

3.1.4.40.6 Groups

None.

3.1.4.40.7 Attribute Groups

None.

3.1.4.41 GetKpi

The **GetKpi** operation retrieves a **Kpi** complex type object (section 2.2.4.128).

The following is the **WSDL** port type specification of the **GetKpi** **WSDL operation**.

```
<wsdl:operation name="GetKpi" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetKpiSoapIn"/>
  <wsdl:output message="tns:GetKpiSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetKpiSoapIn** request message (section 3.1.4.41.1.1), and the **server (2)** responds with a **GetKpiSoapOut** response message (section 3.1.4.41.1.2) as follows:

- The server (2) receives the **RepositoryLocation** complex type (section 2.2.4.161) of a **Kpi**.

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- The server (2) MUST retrieve the **Kpi**.
- In the event that a **Kpi** cannot be retrieved, the server (2) SHOULD<33> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.41.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetKpiSoapIn	The request WSDL message for the **GetKpi** **WSDL operation**.
GetKpiSoapOut	The response WSDL message for the **GetKpi** WSDL operation.

3.1.4.41.1.1 GetKpiSoapIn

The request **WSDL message** for the **GetKpi** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetKpi
```

The **SOAP body** contains the **GetKpi** element.

3.1.4.41.1.2 GetKpiSoapOut

The response **WSDL message** for the **GetKpi** **WSDL operation**.

The **SOAP body** contains the **GetKpiResponse** element.

3.1.4.41.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetKpi	The input data for the **GetKpi** **WSDL operation**.
GetKpiResponse	The result data for the **GetKpi** WSDL operation.

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3.1.4.41.2.1 GetKpi

The **GetKpi** element specifies the input data for the **GetKpi** **WSDL operation**.

```
<xs:element name="GetKpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: The location of the **KPI** to be retrieved, as specified by a **RepositoryLocation** complex type (section 2.2.4.161). This element MUST be present.

3.1.4.41.2.2 GetKpiResponse

The **GetKpiResponse** element specifies the result data for the **GetKpi** **WSDL operation**.

```
<xs:element name="GetKpiResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetKpiResult" type="tns:Kpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetKpiResult: The **Kpi** complex type object (section 2.2.4.128) that was requested from the **server (2)**.

3.1.4.41.3 Complex Types

None.

3.1.4.41.4 Simple Types

None.

3.1.4.41.5 Attributes

None.

3.1.4.41.6 Groups

None.

3.1.4.41.7 Attribute Groups

None.

3.1.4.42 GetKpisFromScorecard

The **GetKpisFromScorecard** operation retrieves an array of **Kpi** complex type objects (section 2.2.4.128) associated with a **scorecard**.

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The following is the **WSDL** port type specification of the **GetKpisFromScorecard** **WSDL operation**.

```
<wsdl:operation name="GetKpisFromScorecard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetKpisFromScorecardSoapIn"/>
  <wsdl:output message="tns:GetKpisFromScorecardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetKpisFromScorecardSoapIn** request message (section 3.1.4.42.1.1), and the **server (2)** responds with a **GetKpisFromScorecardSoapOut** response message (section 3.1.4.42.1.2) as follows:

- The server (2) receives a **RepositoryLocation** complex type (section 2.2.4.161) of a scorecard.
- The server (2) MUST retrieve the array of **Kpi** elements.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.42.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetKpisFromScorecardSoapIn	The request WSDL message for the **GetKpisFromScorecard** **WSDL operation**.
GetKpisFromScorecardSoapOut	The response WSDL message for the **GetKpisFromScorecard** WSDL operation.

3.1.4.42.1.1 GetKpisFromScorecardSoapIn

The request **WSDL message** for the **GetKpisFromScorecard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetKpisFromScorecard
```

The **SOAP body** contains the **GetKpisFromScorecard** element.

3.1.4.42.1.2 GetKpisFromScorecardSoapOut

The response **WSDL message** for the **GetKpisFromScorecard** **WSDL operation**.

The **SOAP body** contains the **GetKpisFromScorecardResponse** element.

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3.1.4.42.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetKpisFromScorecard	The input data for the **GetKpisFromScorecard** **WSDL operation**.
GetKpisFromScorecardResponse	The result data for the **GetKpisFromScorecard** WSDL operation.

3.1.4.42.2.1 GetKpisFromScorecard

The **GetKpisFromScorecard** element specifies the input data for the **GetKpisFromScorecard** **WSDL operation**.

```
<xs:element name="GetKpisFromScorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecardLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecardLocation: The location of a **scorecard**, as specified by the **RepositoryLocation** complex type (section 2.2.4.161). This element MUST be present.

3.1.4.42.2.2 GetKpisFromScorecardResponse

The **GetKpisFromScorecardResponse** element specifies the result data for the **GetKpisFromScorecard** **WSDL operation**.

```
<xs:element name="GetKpisFromScorecardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetKpisFromScorecardResult"
type="tns:ArrayOfKpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetKpisFromScorecardResult: An array of **Kpi** complex type elements (section 2.2.4.128) that was requested from the **server (2)**.

3.1.4.42.3 Complex Types

None.

3.1.4.42.4 Simple Types

None.

3.1.4.42.5 Attributes

None.

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3.1.4.42.6 Groups

None.

3.1.4.42.7 Attribute Groups

None.

3.1.4.43 GetLatestAnalyticReportVersion

The **GetLatestAnalyticReportVersion** operation retrieves from the **server (2)** the version number for a **report view** that has been created through **SaveTemporaryAnalyticReport** operation (section 3.1.4.65).

The following is the **WSDL** port type specification of the **GetLatestAnalyticReportVersion WSDL operation**.

```
<wsdl:operation name="GetLatestAnalyticReportVersion"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetLatestAnalyticReportVersionSoapIn"/>
  <wsdl:output message="tns:GetLatestAnalyticReportVersionSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetReportViewSoapIn** request message (section 3.1.4.43.1.1) and the server (2) responds with a **GetReportViewSoapOut** response message (section 3.1.4.43.1.2) as follows:

- The protocol client sends a **GUID** that uniquely identifies a report view.
- The server (2) sends an integer representing the latest version number of the corresponding report view.

In case of failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is specified in section 2.2.2.1.

3.1.4.43.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetLatestAnalyticReportVersionSoapIn	The request WSDL message for the **GetLatestAnalyticReportVersion WSDL operation**.
GetLatestAnalyticReportVersionSoapOut	The response WSDL message for the **GetLatestAnalyticReportVersion** WSDL operation.

3.1.4.43.1.1 GetLatestAnalyticReportVersionSoapIn

The request **WSDL message** for the **GetLatestAnalyticReportVersion WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetLatestAnalyticReportVersion
```


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The **SOAP body** contains the **GetLatestAnalyticReportVersion** element.

3.1.4.43.1.2 GetLatestAnalyticReportVersionSoapOut

The response **WSDL message** for the **GetLatestAnalyticReportVersion WSDL operation**.

The **SOAP body** contains the **GetLatestAnalyticReportVersionResponse** element.

3.1.4.43.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetLatestAnalyticReportVersion	The input data for the **GetLatestAnalyticReportVersion WSDL operation**.
GetLatestAnalyticReportVersionResponse	The result data for the **GetLatestAnalyticReportVersion** WSDL operation.

3.1.4.43.2.1 GetLatestAnalyticReportVersion

The **GetLatestAnalyticReportVersion** element specifies the input data for the **GetLatestAnalyticReportVersion WSDL operation**.

```
<xs:element name="GetLatestAnalyticReportVersion"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="analyticReportViewId"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

analyticReportViewId: The **SaveTemporaryAnalyticReportResult** element (section 3.1.4.65.2.2) returned when the **report view** was saved. This element MUST be present.

3.1.4.43.2.2 GetLatestAnalyticReportVersionResponse

The **GetLatestAnalyticReportVersionResponse** element specifies the result data for the **GetLatestAnalyticReportVersion WSDL operation**.

```
<xs:element name="GetLatestAnalyticReportVersionResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="GetLatestAnalyticReportVersionResult"
type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetLatestAnalyticReportVersionResult: The version number of the **report view**. This element MUST be present.

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3.1.4.43.3 Complex Types

None.

3.1.4.43.4 Simple Types

None.

3.1.4.43.5 Attributes

None.

3.1.4.43.6 Groups

None.

3.1.4.43.7 Attribute Groups

None.

3.1.4.44 GetListItems

The **GetListItems** operation retrieves all **FirstClassElements** complex types (section 2.2.4.99) associated with a given repository **list (1)** from the **server (2)**.

The following is the **WSDL** port type specification of the **GetListItems WSDL operation**.

```
<wsdl:operation name="GetListItems" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetListItemsSoapIn"/>
  <wsdl:output message="tns:GetListItemsSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetListItemsSoapIn** request message (section 3.1.4.44.1.1), and the server (2) responds with a **GetListItemsSoapOut** response message (section 3.1.4.44.1.2) as follows:

- The protocol client sends the **URL** of the list (1) from which to retrieve **items**.
- The server (2) responds with a collection of corresponding **FirstClassElement** items.
- In the event that all **FirstClassElement** items in the list (1) cannot be retrieved, the server (2) SHOULD<34> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.44.1 Messages

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The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetListItemsSoapIn	The request WSDL message for the **GetListItems** **WSDL operation**.
GetListItemsSoapOut	The response WSDL message for the **GetListItems** WSDL operation.

3.1.4.44.1.1 GetListItemsSoapIn

The request **WSDL message** for the **GetListItems** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetListItems
```

The **SOAP body** contains the **GetListItems** element.

3.1.4.44.1.2 GetListItemsSoapOut

The response **WSDL message** for the **GetListItems** **WSDL operation**.

The **SOAP body** contains the **GetListItemsResponse** element.

3.1.4.44.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetListItems	The input data for the **GetListItems** **WSDL operation**.
GetListItemsResponse	The result data for the **GetListItems** WSDL operation.

3.1.4.44.2.1 GetListItems

The **GetListItems** element specifies the input data for the **GetListItems** **WSDL operation**.

```
<xs:element name="GetListItems" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

listUrl: A **server-relative URL** that references the **list (1)** on the **server (2)** from which to retrieve the **items**. This element MUST be present and MUST be a valid **URL**.

3.1.4.44.2.2 GetListItemsResponse

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The **GetListItemsResponse** element specifies the result data for the **GetListItems** **WSDL operation**.

```
<xs:element name="GetListItemsResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetListItemsResult"
type="tns:ArrayOfFirstClassElement"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetListItemsResult: An array of **FirstClassElement** complex type objects (section 2.2.4.99), as specified in the **ArrayofFirstClassElement** (section 2.2.4.34). This element MUST be present. This array MUST contain one element for each **item** in the requested **list (1)** and SHOULD NOT contain null elements.

3.1.4.44.3 Complex Types

None.

3.1.4.44.4 Simple Types

None.

3.1.4.44.5 Attributes

None.

3.1.4.44.6 Groups

None.

3.1.4.44.7 Attribute Groups

None.

3.1.4.45 GetMdx

The **GetMdx** operation retrieves an **MDX** that can be used to query data sources for the given analytic report. The Analytic Chart and Analytic Grid **report view** types contain custom data that is used to generate MDX queries. See the **ReportView** complex type (section 2.2.4.160) for more detail.

The following is the **WSDL** port type specification of the **GetMdx** **WSDL operation**.

```
<wsdl:operation name="GetMdx" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetMdxSoapIn"/>
  <wsdl:output message="tns:GetMdxSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetMdxSoapIn** request message (section 3.1.4.45.1.1), and the **server (2)** responds with a **GetMdxSoapOut** response message (section 3.1.4.45.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) referencing the analytic report from which to generate the MDX.
- The server (2) responds with an MDX expression.

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- In the event the MDX cannot be retrieved, the server (2) SHOULD<35> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.45.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetMdxSoapIn	The request WSDL message for the **GetMdx** **WSDL operation**.
GetMdxSoapOut	The response WSDL message for the **GetMdx** WSDL operation.

3.1.4.45.1.1 GetMdxSoapIn

The request **WSDL message** for the **GetMdx** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetMdx
```

The **SOAP body** contains the **GetMdx** element.

3.1.4.45.1.2 GetMdxSoapOut

The response **WSDL message** for the **GetMdx** **WSDL operation**.

The **SOAP body** contains the **GetMdxResponse** element.

3.1.4.45.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetMdx	The input data for the **GetMdx** **WSDL operation**.
GetMdxResponse	The result data for the **GetMdx** WSDL operation.

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3.1.4.45.2.1 GetMdx

The **GetMdx** element specifies the input data for the **GetMdx** **WSDL operation**.

```
<xs:element name="GetMdx" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="analyticReportViewLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

analyticReportViewLocation: A **RepositoryLocation** complex type (section 2.2.4.161). This element MUST be present.

- If the **report view** was created with the **CreateReportView** operation (section 3.1.4.7), the **ItemUrl** property MUST contain a valid **URL**. **ItemType** and **ItemGuid** are set by the **server (2)**.
- If the report view was created with the **SaveTemporaryAnalyticReport** operation (section 3.1.4.65):
  - The **ItemGuid** property MUST equal the **GUID** that was returned from **SaveTemporaryAnalyticReport**.
  - The **ItemType** property MUST equal **TempReportView**, as specified by **FirstClassObjectType** simple type (section 2.2.5.20).
  - The **ItemUrl** property MUST equal an empty string.

3.1.4.45.2.2 GetMdxResponse

The **GetMdxResponse** element specifies the result data for the **GetMdx** **WSDL operation**.

```
<xs:element name="GetMdxResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetMdxResult" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetMdxResult: A string that represents an **MDX**. This string SHOULD NOT be empty.

3.1.4.45.3 Complex Types

None.

3.1.4.45.4 Simple Types

None.

3.1.4.45.5 Attributes

None.

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3.1.4.45.6 Groups

None.

3.1.4.45.7 Attribute Groups

None.

3.1.4.46 GetParameterDisplayData

The **GetParameterDisplayData** operation builds a template data table containing only the columns produced by a specific parameter type. The referred parameter represents a specific kind of connection between two **Web Parts**. The resulting **DataTable** (as described in [DataTable]) represents an empty sample of the information that gets passed on that connection.

The following is the **WSDL** port type specification of the **GetParameterDisplayData WSDL operation**.

```
<wsdl:operation name="GetParameterDisplayData" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetParameterDisplayDataSoapIn"/>
  <wsdl:output message="tns:GetParameterDisplayDataSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetParameterDisplayDataSoapIn** request message (section 3.1.4.46.1.1), and the **server (2)** responds with a **GetParameterDisplayDataSoapOut** response message (section 3.1.4.46.1.2) as follows:

- The server (2) uses the **ParameterProviderId** property from the **ParameterDefinition** complex type (section 2.2.4.155) to identify one of the parameter providers registered on the server (2).
- The server (2) creates the **DataTable** containing all columns used by that parameter type. The server (2) uses the **data source (1)** referenced by **parameterSourceLocation** and the **GridViewData**<36> complex type (section 2.2.4.121) referenced by **gridViewData** element (see section 3.1.4.46.2.1) to create the **DataTable**.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.46.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetParameterDisplayDataSoapIn	The request WSDL message for the **GetParameterDisplayData WSDL operation**.
GetParameterDisplayDataSoapOut	The response WSDL message for the **GetParameterDisplayData** WSDL

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Message	Description
	operation.

3.1.4.46.1.1 GetParameterDisplayDataSoapIn

The request **WSDL message** for the **GetParameterDisplayData** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetParameterDisplayData
```

The **SOAP body** contains the **GetParameterDisplayData** element.

3.1.4.46.1.2 GetParameterDisplayDataSoapOut

The response **WSDL message** for the **GetParameterDisplayData** **WSDL operation**.

The **SOAP body** contains the **GetParameterDisplayDataResponse** element.

3.1.4.46.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetParameterDisplayData	The input data for the **GetParameterDisplayData** **WSDL operation**.
GetParameterDisplayDataResponse	The result data for the **GetParameterDisplayData** WSDL operation.

3.1.4.46.2.1 GetParameterDisplayData

The **GetParameterDisplayData** element specifies the input data for the **GetParameterDisplayData** **WSDL operation**.

```
<xs:element name="GetParameterDisplayData" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="parameterDefinition"
type="tns:ParameterDefinition"/>
      <xs:element minOccurs="0" maxOccurs="1" name="parameterSourceLocation"
type="tns:RepositoryLocation"/>

      <xs:element minOccurs="0" maxOccurs="1" name="gridViewData" type="tns:GridViewData"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

parameterDefinition: Specifies the **ParameterDefinition** complex type (section 2.2.4.155). This element MUST NOT be null and the **ParameterProviderId** property MUST refer to one of the parameter data providers registered on the **server (2)**. This function supports only filter-type parameters shown in the following table.

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ParameterProviderId	CustomDefinition
MDXParameterDataProvider	A MdxParameterDefinition object.
MemberParameterDataProvider	A MemberParameterDefinition object.
NamedSetParameterDataProvider	A NamedSetParameterDefinition object.
TimeIntelligencePostFormulaProvider	A TimeIntelligencePostFormulaDefinition object.
TimeIntelligenceProvider	A TimeIntelligenceDefinition object.

parameterSourceLocation: Specifies a data source location as defined in a **RepositoryLocation** complex type (section 2.2.4.161). This element MAY be null or empty, in which case if the parameter type requires a data source location, the resulting **DataTable** (as described in [DataTable]) is **NULL**.

The following parameter providers require an **MDX** capable **OLAP data source (1)**.

ParameterProviderId	CustomDefinition
MDXParameterDataProvider	A MdxParameterDefinition object.
MemberParameterDataProvider	A MemberParameterDefinition object.
NamedSetParameterDataProvider	A NamedSetParameterDefinition object.

gridViewData: Unused. This element MUST be set to **NULL** and MUST be ignored by the protocol client.

3.1.4.46.2.2 GetParameterDisplayDataResponse

The **GetParameterDisplayDataResponse** element specifies the result data for the **GetParameterDisplayData** **WSDL operation**.

```
<xs:element name="GetParameterDisplayDataResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetParameterDisplayDataResult">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" maxOccurs="unbounded"
namespace="http://www.w3.org/2001/XMLSchema" processContents="lax"/>
            <xs:any minOccurs="1" namespace="urn:schemas-microsoft-com:xml-diffgram-v1"
processContents="lax"/>

          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetParameterDisplayDataResult: This defines the template data table that contains only the columns produced by a specific parameter type.

3.1.4.46.3 Complex Types

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None.

3.1.4.46.4 Simple Types

None.

3.1.4.46.5 Attributes

None.

3.1.4.46.6 Groups

None.

3.1.4.46.7 Attribute Groups

None.

3.1.4.47 GetPreviewDataSet

The **GetPreviewDataSet** method retrieves a data set from a data source, which is suitable for previewing results.

The following is the **WSDL** port type specification of the **GetPreviewDataSet** **WSDL operation**.

```
<wsdl:operation name="GetPreviewDataSet" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetPreviewDataSetSoapIn"/>
  <wsdl:output message="tns:GetPreviewDataSetSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetPreviewDataSetSoapIn** request message (section 3.1.4.47.1.1), and the **server (2)** responds with a **GetPreviewDataSetSoapOut** response message (section 3.1.4.47.1.2) as follows:

- The protocol client sends a **DataSource** complex type (section 2.2.4.85) that defines the data to be retrieved.
- The server (2) responds with a data set suitable for previewing the data.
- In the event a data set cannot be retrieved, the server (2) MUST return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionFailed	See Common List of Error Codes (section 2.2.2.1.3).
DataSourceConnectionUnsupported	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

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3.1.4.47.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetPreviewDataSetSoapIn	The request WSDL message for the **GetPreviewDataSet** **WSDL operation**.
GetPreviewDataSetSoapOut	The response WSDL message for the **GetPreviewDataSet** WSDL operation.

3.1.4.47.1.1 GetPreviewDataSetSoapIn

The request **WSDL message** for the **GetPreviewDataSet** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetPreviewDataSet
```

The **SOAP body** contains the **GetPreviewDataSet** element.

3.1.4.47.1.2 GetPreviewDataSetSoapOut

The response **WSDL message** for the **GetPreviewDataSet** **WSDL operation**.

The **SOAP body** contains the **GetPreviewDataSetResponse** element.

3.1.4.47.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetPreviewDataSet	The input data for the **GetPreviewDataSet** **WSDL operation**.
GetPreviewDataSetResponse	The result data for the **GetPreviewDataSet** WSDL operation.

3.1.4.47.2.1 GetPreviewDataSet

The **GetPreviewDataSet** element specifies the input data for the **GetPreviewDataSet** **WSDL operation**.

```
<xs:element name="GetPreviewDataSet" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="maxRecords" type="xs:int"/>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

maxRecords: The maximum number of records to retrieve.

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dataSource: The **DataSource** complex type (section 2.2.4.85) to be used in the query. This element MUST NOT be null or empty. The **DataSource** MUST allow the query of preview data sets.<37>

3.1.4.47.2.2 GetPreviewDataSetResponse

The **GetPreviewDataSetResponse** element specifies the result data for the **GetPreviewDataSet WSDL operation**.

```
<xs:element name="GetPreviewDataSetResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetPreviewDataSetResult">
        <xs:complexType mixed="true">
          <xs:sequence>
            <xs:any/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetPreviewDataSetResult: The data set matching the specifications in the **DataSource** complex type (section 2.2.4.85). The data set MUST include two elements: a schema element and a data element. The content of the data element MUST conform to the schema in the schema element. The data set SHOULD include one table, but SHOULD be empty if the **dataSource** is invalid. The data table MUST include the columns specified in **DataSource**.

3.1.4.47.3 Complex Types

None.

3.1.4.47.4 Simple Types

None.

3.1.4.47.5 Attributes

None.

3.1.4.47.6 Groups

None.

3.1.4.47.7 Attribute Groups

None.

3.1.4.48 GetQueryResultMembers

The **GetQueryResultMembers** operation retrieves an array of **members (2)** associated with the specified **report**.

The following is the **WSDL** port type specification of the **GetQueryResultMembers WSDL operation**.

```
<wsdl:operation name="GetQueryResultMembers" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetQueryResultMembersSoapIn"/>
```


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```
    <wsdl:output message="tns:GetQueryResultMembersSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetQueryResultMembersSoapIn** request message (section 3.1.4.48.1.1), and the **server (2)** responds with a **GetQueryResultMembersSoapOut** response message (section 3.1.4.48.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the **report view**. It also sends a unique **dimension** name.
- The server (2) sends the corresponding **ArrayOfMember** complex type (section 2.2.4.45).

Exceptions:

Error code	Description
InvalidDataSource	Current operation on the **data source (1)** cannot be finished because the data source (1) has failed basic validation.
InvalidReportView	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.48.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetQueryResultMembersSoapIn	The request WSDL message for the **GetQueryResultMembers** **WSDL operation**.
GetQueryResultMembersSoapOut	The response WSDL message for the **GetQueryResultMembers** WSDL operation.

3.1.4.48.1.1 GetQueryResultMembersSoapIn

The request **WSDL message** for the **GetQueryResultMembers** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetQueryResultMembers
```

The **SOAP body** contains the **GetQueryResultMembers** element.

3.1.4.48.1.2 GetQueryResultMembersSoapOut

The response **WSDL message** for the **GetQueryResultMembers** **WSDL operation**.

The **SOAP body** contains the **GetQueryResultMembersResponse** element.

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3.1.4.48.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetQueryResultMembers	The input data for the **GetQueryResultMembers WSDL operation**.
GetQueryResultMembersResponse	The result data for the **GetQueryResultMembers** WSDL operation.

3.1.4.48.2.1 GetQueryResultMembers

The **GetQueryResultMembers** element specifies the input data for the **GetQueryResultMembers WSDL operation**.

```
<xs:element name="GetQueryResultMembers" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="analyticReportViewLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="formattingDimensionName"
type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

analyticReportViewLocation: A **RepositoryLocation** complex type (section 2.2.4.161). This element MUST be present.

formattingDimensionName: The unique name of the formatting **dimension**. The element MUST be present.

3.1.4.48.2.2 GetQueryResultMembersResponse

The **GetQueryResultMembersResponse** element specifies the result data for the **GetQueryResultMembers WSDL operation**.

```
<xs:element name="GetQueryResultMembersResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetQueryResultMembersResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>

</xs:element>
```

GetQueryResultMembersResult: This element MUST contain an **ArrayOfMember** complex type (section 2.2.4.45).

3.1.4.48.3 Complex Types

None.

3.1.4.48.4 Simple Types

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None.

3.1.4.48.5 Attributes

None.

3.1.4.48.6 Groups

None.

3.1.4.48.7 Attribute Groups

None.

3.1.4.49 GetRegisteredCustomFCOs

The **GetRegisteredCustomFCOs** operation retrieves custom object definitions registered on the **server (2)**.

The following is the **WSDL** port type specification of the **GetRegisteredCustomFCOs WSDL operation**.

```
<wsdl:operation name="GetRegisteredCustomFCOs" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetRegisteredCustomFCOsSoapIn"/>
  <wsdl:output message="tns:GetRegisteredCustomFCOsSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetRegisteredCustomFCOsSoapIn** request message (section 3.1.4.49.1.1), and the server (2) responds with a **GetRegisteredCustomFCOsSoapOut** response message (section 3.1.4.49.1.2) as follows:

- The protocol client sends the type of custom objects to be returned by the server (2). The informed type MUST be one of the following: All, **DataSource**, **Filter**, and **ReportView**, as defined in the **CustomFCOType** simple type (section 3.1.4.49.4.1).
- The server (2) reads all the custom object entries registered on the server (2) and returns only those matching the type provided by the client protocol.
- The result is a collection of **CustomFCODefinition** complex type objects (section 3.1.4.49.3.2), as defined in the **ArrayOfCustomFCODefinition** complex type (section 3.1.4.49.3.1).

3.1.4.49.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetRegisteredCustomFCOsSoapIn	The request WSDL message for the **GetRegisteredCustomFCOs WSDL operation**.
GetRegisteredCustomFCOsSoapOut	The response WSDL message for the **GetRegisteredCustomFCOs** WSDL operation.

3.1.4.49.1.1 GetRegisteredCustomFCOsSoapIn

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The request **WSDL message** for the **GetRegisteredCustomFCOs WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetRegisteredCustomFCOs
```

The **SOAP body** contains the **GetRegisteredCustomFCOs** element.

3.1.4.49.1.2 GetRegisteredCustomFCOsSoapOut

The response **WSDL message** for the **GetRegisteredCustomFCOs WSDL operation**.

The **SOAP body** contains the **GetRegisteredCustomFCOsResponse** element.

3.1.4.49.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetRegisteredCustomFCOs	The input data for the **GetRegisteredCustomFCOs WSDL operation**.
GetRegisteredCustomFCOsResponse	The result data for the **GetRegisteredCustomFCOs** WSDL operation.

3.1.4.49.2.1 GetRegisteredCustomFCOs

The **GetRegisteredCustomFCOs** element specifies the input data for the **GetRegisteredCustomFCOs WSDL operation**.

```
<xs:element name="GetRegisteredCustomFCOs" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="type" type="tns:CustomFCOType"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

type: Specifies the type of custom objects to be returned by the **server (2)**. The informed type MUST be one of the following: All, **DataSource**, **Filter**, and **ReportView**, as defined in **CustomFCOType** simple type (section 3.1.4.49.4.1).

3.1.4.49.2.2 GetRegisteredCustomFCOsResponse

The **GetRegisteredCustomFCOsResponse** element specifies the result data for the **GetRegisteredCustomFCOs WSDL operation**.

```
<xs:element name="GetRegisteredCustomFCOsResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetRegisteredCustomFCOsResult"
type="tns:ArrayOfCustomFCODefinition"/>
    </xs:sequence>
  </xs:complexType>
```


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```
</xs:element>
```

GetRegisteredCustomFCOsResult: Specifies a collection of **CustomFCODefinition** complex type objects (section 3.1.4.49.3.2), as defined in the **ArrayOfCustomFCODefinition** complex type (section 3.1.4.49.3.1). This collection MUST contain all the valid custom objects registered on the **server (2)** that equal the type sent from the protocol client.

3.1.4.49.3 Complex Types

The following table summarizes the **XML schema** complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfCustomFCODefinition	Specifies an array of definitions for a custom object.
CustomFCODefinition	Specifies how instances of a custom object class are created, modified, and rendered in dashboards.

3.1.4.49.3.1 ArrayOfCustomFCODefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **ArrayOfCustomFCODefinition** complex type specifies an array of definitions for a custom object.

```
<xs:complexType name="ArrayOfCustomFCODefinition"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="CustomFCODefinition"
nillable="true" type="tns:CustomFCODefinition"/>
  </xs:sequence>
</xs:complexType>
```

CustomFCODefinition: This element MUST NOT be null and MUST conform to the schema of the **CustomFCODefinition** complex type (section 3.1.4.49.3.2).

3.1.4.49.3.2 CustomFCODefinition

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **CustomFCODefinition** complex type specifies how instances of a custom object class are created, modified, and rendered in **dashboards**.

```
<xs:complexType name="CustomFCODefinition" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="TemplateIconSerialized" type="xs:string"/>
  </xs:sequence>
  <xs:attribute name="Type" type="tns:CustomFCOType" use="required"/>
  <xs:attribute name="SubType" type="xs:string"/>
  <xs:attribute name="Name" type="xs:string"/>
  <xs:attribute name="Description" type="xs:string"/>
  <xs:attribute name="RendererClass" type="xs:string"/>
  <xs:attribute name="EditorUri" type="xs:string"/>
</xs:complexType>
```


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TemplateIconSerialized: Specifies an image that represents the custom object. The value MUST be either empty or a **base64 encoding** of a bitmap.

Type: The type of custom object class instance, as specified in the **CustomFCOType** simple type (section 3.1.4.49.4.1). The value MUST be **DataSource**, **Filter**, or **ReportView**.

SubType: The sub-type instances of the custom object class.

- The value MUST NOT be empty.
- The value MUST NOT be longer than 60 characters.
- The value MUST NOT contain the following characters: apostrophe ('), quotation mark ("), or backslash (\).

Name: The name of the custom object class.

Description: The description of the custom object class.

RendererClass: The assembly-qualified name of a type that renders the custom object. When the **Type** attribute equals "DataSource", the value MUST be empty.

EditorUri: The **URL** of the associated application used to create and modify the custom object. The value MUST NOT be empty.

3.1.4.49.4 Simple Types

The following table summarizes the **XML schema** simple type definitions that are specific to this operation.

Simple type	Description
CustomFCOType	Specifies the type of a custom object.

3.1.4.49.4.1 CustomFCOType

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **CustomFCOType** enumeration specifies the type of a custom object.

```
<xs:simpleType name="CustomFCOType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="DataSource"/>
        <xs:enumeration value="Filter"/>
        <xs:enumeration value="ReportView"/>
        <xs:enumeration value="All"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

The following table specifies the allowable values for the **CustomFCOType** simple type.

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Value	Meaning
None	The object type is not specified.
DataSource	The object is a **DataSource** complex type (section 2.2.4.85).
Filter	The object is a **Filter** complex type (section 2.2.4.98).
ReportView	The object is a **ReportView** complex type (section 2.2.4.160).
All	This object is a **DataSource**, **Filter** or **ReportView**. This value MUST only be used when **GetRegisteredCustomFCOs** operation (section 3.1.4.49) is invoked.

3.1.4.49.5 Attributes

None.

3.1.4.49.6 Groups

None.

3.1.4.49.7 Attribute Groups

None.

3.1.4.50 GetReportView

The **GetReportView** operation retrieves a **ReportView** complex type (section 2.2.4.160) from the **server (2)**.

The following is the **WSDL** port type specification of the **GetReportView WSDL operation**.

```
<wsdl:operation name="GetReportView" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetReportViewSoapIn"/>
  <wsdl:output message="tns:GetReportViewSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetReportViewSoapIn** request message (section 3.1.4.50.1.1), and the server (2) responds with a **GetReportViewSoapOut** response message (section 3.1.4.50.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the **ReportView** to be retrieved.
- The server (2) sends the corresponding **ReportView**.
- In the event that a **ReportView** cannot be retrieved, the server (2) SHOULD<38> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.50.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetReportViewSoapIn	The request WSDL message for the **GetReportView** **WSDL operation**.
GetReportViewSoapOut	The response WSDL message for the **GetReportView** WSDL operation.

3.1.4.50.1.1 GetReportViewSoapIn

The request **WSDL message** for the **GetReportView** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetReportView
```

The **SOAP body** contains the **GetReportView** element.

3.1.4.50.1.2 GetReportViewSoapOut

The response **WSDL message** for the **GetReportView** **WSDL operation**.

The **SOAP body** contains the **GetReportViewResponse** element.

3.1.4.50.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetReportView	The input data for the **GetReportView** **WSDL operation**.
GetReportViewResponse	The result data for the **GetReportView** WSDL operation.

3.1.4.50.2.1 GetReportView

The **GetReportView** element specifies the input data for the **GetReportView** **WSDL operation**.

```
<xs:element name="GetReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
```


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```
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: The **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of the **ReportView** complex type (section 2.2.4.160) on the **server (2)**.

- This element MUST be present.
- The **ItemUrl** property MUST be set to the location of the **ReportView**.

3.1.4.50.2.2 GetReportViewResponse

The **GetReportViewResponse** element specifies the result data for the **GetReportView WSDL operation**.

```
<xs:element name="GetReportViewResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetReportViewResult"
type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetReportViewResult: The **ReportView** complex type object (section 2.2.4.160) that was requested from the **server (2)**.

3.1.4.50.3 Complex Types

None.

3.1.4.50.4 Simple Types

None.

3.1.4.50.5 Attributes

None.

3.1.4.50.6 Groups

None.

3.1.4.50.7 Attribute Groups

None.

3.1.4.51 GetScorecard

The **GetScorecard** operation retrieves a **Scorecard** complex type (section 2.2.4.162).

The following is the **WSDL** port type specification of the **GetScorecard WSDL operation**.

```
<wsdl:operation name="GetScorecard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:GetScorecardSoapIn"/>
```


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```
    <wsdl:output message="tns:GetScorecardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **GetScorecardSoapIn** request message (section 3.1.4.51.1.1), and the **server (2)** responds with a **GetScorecardSoapOut** response message (section 3.1.4.51.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the **Scorecard** to be retrieved.
- The server (2) responds with the corresponding **Scorecard**.
- In the event that the **Scorecard** cannot be retrieved, the server (2) SHOULD<39> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.51.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
GetScorecardSoapIn	The request WSDL message for the **GetScorecard** **WSDL operation**.
GetScorecardSoapOut	The response WSDL message for the **GetScorecard** WSDL operation.

3.1.4.51.1.1 GetScorecardSoapIn

The request **WSDL message** for the **GetScorecard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/GetScorecard
```

The **SOAP body** contains the **GetScorecard** element.

3.1.4.51.1.2 GetScorecardSoapOut

The response **WSDL message** for the **GetScorecard** **WSDL operation**.

The **SOAP body** contains the **GetScorecardResponse** element.

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3.1.4.51.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetScorecard	The input data for the **GetScorecard** **WSDL operation**.
GetScorecardResponse	The result data for the **GetScorecard** WSDL operation.

3.1.4.51.2.1 GetScorecard

The **GetScorecard** element specifies the input data for the **GetScorecard** **WSDL operation**.

```
<xs:element name="GetScorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: A **RepositoryLocation** complex type, as specified in section 2.2.4.161. This element MUST be present. The **ItemUrl** property MUST contain a valid **URL**.

3.1.4.51.2.2 GetScorecardResponse

The **GetScorecardResponse** element specifies the result data for the **GetScorecard** **WSDL operation**.

```
<xs:element name="GetScorecardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="GetScorecardResult"
type="tns:Scorecard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetScorecardResult: A **Scorecard** complex type, as specified in section 2.2.4.162. This element SHOULD be present.

3.1.4.51.3 Complex Types

None.

3.1.4.51.4 Simple Types

None.

3.1.4.51.5 Attributes

None.

3.1.4.51.6 Groups

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None.

3.1.4.51.7 Attribute Groups

None.

3.1.4.52 ImportDashboard

The **ImportDashboard** operation<40> is used to import content from a specified Deployment Package ([MS-PRIMEPF]) to the **server (2)**.

The following is the **WSDL** port type specification of the **ImportDashboard WSDL operation**.

```
<wsdl:operation name="ImportDashboard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:ImportDashboardSoapIn"/>
  <wsdl:output message="tns:ImportDashboardSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **ImportDashboardSoapIn** request message (section 3.1.4.52.1.1), and the server (2) responds with an **ImportDashboardSoapOut** response message (section 3.1.4.52.1.2) as follows:

- The server (2) imports the items from the Deployment Package ([MS-PRIMEPF]) specified in the filename.
- If there was an application error on the server (2) during the operation, the server (2) MUST return a **SOAP fault** response, which SHOULD include one of exceptions specified below, but MAY contain any other exceptions.

Exceptions:

Error code	Description
InvalidUrl	An invalid **URL** was specified
FCOUnauthorizedAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.52.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
ImportDashboardSoapIn	The request WSDL message for the **ImportDashboard WSDL operation**.
ImportDashboardSoapOut	The response WSDL message for the **ImportDashboard** WSDL operation.

3.1.4.52.1.1 ImportDashboardSoapIn

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The request **WSDL message** for the **ImportDashboard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/ImportDashboard
```

The **SOAP body** contains the **ImportDashboard** element.

3.1.4.52.1.2 ImportDashboardSoapOut

The response **WSDL message** for the **ImportDashboard** **WSDL operation**.

The **SOAP body** contains the **ImportDashboardResponse** element.

3.1.4.52.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ImportDashboard	The input data for the **ImportDashboard** **WSDL operation**.
ImportDashboardResponse	The result data for the **ImportDashboard** WSDL operation.

3.1.4.52.2.1 ImportDashboard

The **ImportDashboard** element specifies the input data for the **ImportDashboard** **WSDL operation**.

```
<xs:element name="ImportDashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="siteUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="filename" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="locationMap">
        <xs:complexType mixed="true">
          <xs:sequence>
            <xs:any/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element minOccurs="0" maxOccurs="1" name="datasourceMap">
        <xs:complexType mixed="true">
          <xs:sequence>

            <xs:any/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element minOccurs="0" maxOccurs="1" name="masterPageUrl" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

siteUrl: Contains the **site collection URL** to use for the import. This element MUST be present.

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filename: Contains the site collection relative path and file name of the Deployment Package ([MS-PRIMEPF]) to import. The path specified MUST be the relative path of a document library in the site collection specified in **siteUrl**. This element MUST be present.

locationMap: Contains a **SerializableDictionary** complex type (section 2.2.4.164) containing keys of type string and values of type string where:

- **Key** contains the **server-relative URL** of the source **list** in the Deployment Package ([MS-PRIMEPF])
- **Value** contains the server-relative URL of the destination list

During the import, all **list items** in the Deployment Package in one of the list URLs specified in **Keys** MUST be imported to the corresponding new destination list URL specified in the corresponding **Value**. If the parent list URL of a list item in the Deployment Package does not have an entry specified in **Keys**, then the list item MUST be imported to the same destination list as specified in the Deployment Package.

This element MUST be present.

datasourceMap: Contains a **SerializableDictionary** containing keys of type string and values of type string where:

- **Key** contains the server-relative URL of a **DataSource** complex type (section 2.2.4.85) in the Deployment Package ([MS-PRIMEPF]).
- **Value** contains the server-relative URL of an existing **DataSource** in the destination site.

During the import, all **FirstClassElement** complex types (section 2.2.4.99) with references to the **DataSources** specified in **Keys** MUST be updated to use the new **DataSource** specified in the corresponding **Value**.

This element MUST be present.

masterPageUrl: Contains the **site** relative URL of the **master page** to be used by the **dashboard** pages in the Deployment Package ([MS-PRIMEPF]). If this element is specified, the **server (2)** MUST update the dashboard pages to use the given master page; otherwise, the server (2) MUST NOT change the master page during import.

3.1.4.52.2.2 ImportDashboardResponse

The **ImportDashboardResponse** element specifies the result data for the **ImportDashboard WSDL operation**.

```
<xs:element name="ImportDashboardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.52.3 Complex Types

None.

3.1.4.52.4 Simple Types

None.

3.1.4.52.5 Attributes

None.

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3.1.4.52.6 Groups

None.

3.1.4.52.7 Attribute Groups

None.

3.1.4.53 QueryChildMembers

The **QueryChildMembers** operation uses a data source for the specified member, and returns a collection of members.

The following is the **WSDL** port type specification of the **QueryChildMembers WSDL operation**.

```
<wsdl:operation name="QueryChildMembers" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryChildMembersSoapIn"/>
  <wsdl:output message="tns:QueryChildMembersSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryChildMembersSoapIn** request message (section 3.1.4.53.1.1), and the **server (2)** responds with a **QueryChildMembersSoapOut** response message (section 3.1.4.53.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the data source to use for retrieving members.
- The server (2) sends the corresponding **ArrayOfMember** complex type (section 2.2.4.45).

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.53.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryChildMembersSoapIn	The request WSDL message for the **QueryChildMembers WSDL operation**.
QueryChildMembersSoapOut	The response WSDL message for the **QueryChildMembers** WSDL operation.

3.1.4.53.1.1 QueryChildMembersSoapIn

The request **WSDL message** for the **QueryChildMembers WSDL operation**.

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The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryChildMembers
```

The **SOAP body** contains the **QueryChildMembers** element.

3.1.4.53.1.2 QueryChildMembersSoapOut

The response **WSDL message** for the **QueryChildMembers WSDL operation**.

The **SOAP body** contains the **QueryChildMembersResponse** element.

3.1.4.53.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryChildMembers	The input data for the **QueryChildMembers WSDL operation**.
QueryChildMembersResponse	The result data for the **QueryChildMembers** WSDL operation.

3.1.4.53.2.1 QueryChildMembers

The **QueryChildMembers** element specifies the input data for the **QueryChildMembers WSDL operation**.

```
<xs:element name="QueryChildMembers" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="memberUniqueName" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: The **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of the data source for the **members (2)** on the **server (2)**.

- The **RepositoryLocation** object MUST NOT be null or empty.
- The **RepositoryLocation** object MUST NOT be a fully specified **URL**.
- The **RepositoryLocation** object MUST be the location of the data source that allows the query of **child** members for a specified member name.

memberUniqueName: A value that uniquely identifies this element within the hierarchy. The value MUST be less than 255 characters and MUST NOT be null or empty.

3.1.4.53.2.2 QueryChildMembersResponse

The **QueryChildMembersResponse** element specifies the result data for the **QueryChildMembers WSDL operation**.

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```
<xs:element name="QueryChildMembersResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryChildMembersResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryChildMembersResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45).

3.1.4.53.3 Complex Types

None.

3.1.4.53.4 Simple Types

None.

3.1.4.53.5 Attributes

None.

3.1.4.53.6 Groups

None.

3.1.4.53.7 Attribute Groups

None.

3.1.4.54 QueryChildMembersByRangeFromDataSource

The **QueryChildMembersByRangeFromDataSource** operation queries the **DataSource** complex type (section 2.2.4.85), and returns a collection of **child** members.

The following is the **WSDL** port type specification of the **QueryChildMembersByRangeFromDataSource WSDL operation**.

```
<wsdl:operation name="QueryChildMembersByRangeFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryChildMembersByRangeFromDataSourceSoapIn"/>
  <wsdl:output message="tns:QueryChildMembersByRangeFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryChildMembersByRangeFromDataSourceSoapIn** request message (section 3.1.4.54.1.1), and the **server (2)** responds with a **QueryChildMembersByRangeFromDataSourceSoapOut** response message (section 3.1.4.54.1.2) as follows:

- The protocol client sends a **DataSource** to use for retrieving members.
- The server (2) sends the corresponding **ArrayOfMember** complex type (section 2.2.4.45).

Exceptions:

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Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.54.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryChildMembersByRangeFromDataSourceSoapIn	The request WSDL message for the **QueryChildMembersByRangeFromDataSource WSDL operation**.
QueryChildMembersByRangeFromDataSourceSoapOut	The response WSDL message for the **QueryChildMembersByRangeFromDataSource** WSDL operation.

3.1.4.54.1.1 QueryChildMembersByRangeFromDataSourceSoapIn

The request **WSDL message** for the **QueryChildMembersByRangeFromDataSource WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryChildMembersByRangeFromDataSource
```

The **SOAP body** contains the **QueryChildMembersByRangeFromDataSource** element.

3.1.4.54.1.2 QueryChildMembersByRangeFromDataSourceSoapOut

The response **WSDL message** for the **QueryChildMembersByRangeFromDataSource WSDL operation**.

The **SOAP body** contains the **QueryChildMembersByRangeFromDataSourceResponse** element.

3.1.4.54.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryChildMembersByRangeFromDataSource	The input data for the **QueryChildMembersByRangeFromDataSource WSDL operation**.
QueryChildMembersByRangeFromDataSourceRespons	The result data for the **QueryChildMembersByRangeFromDataSourc**

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Element	Description
e	**e** WSDL operation.

3.1.4.54.2.1 QueryChildMembersByRangeFromDataSource

The **QueryChildMembersByRangeFromDataSource** element specifies the input data for the **QueryChildMembersByRangeFromDataSource** **WSDL operation**.

```
<xs:element name="QueryChildMembersByRangeFromDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
      <xs:element minOccurs="0" maxOccurs="1" name="self" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="start" type="xs:long"/>
      <xs:element minOccurs="1" maxOccurs="1" name="count" type="xs:long"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **DataSource** complex type (section 2.2.4.85) to be used in the query. This element MUST NOT be null or empty. The **DataSource** MUST allow the query of **child** members for a specified member.

self: A name identifying a member within a **DataSource**. This element MUST NOT be null or empty, or contain more than 255 characters.

start: The starting index of the records in the returned **ArrayOfMember** complex type (section 2.2.4.45). The starting index MUST NOT be greater than the number of members in the requested range.

count: The number of records to be returned in the **ArrayOfMember**. The value MUST NOT be less than zero.

3.1.4.54.2.2 QueryChildMembersByRangeFromDataSourceResponse

The **QueryChildMembersByRangeFromDataSourceResponse** element specifies the result data for the **QueryChildMembersByRangeFromDataSource** **WSDL operation**.

```
<xs:element name="QueryChildMembersByRangeFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1"
name="QueryChildMembersByRangeFromDataSourceResult" type="tns:ArrayOfMember"/>

    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryChildMembersByRangeFromDataSourceResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45).

3.1.4.54.3 Complex Types

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None.

3.1.4.54.4 Simple Types

None.

3.1.4.54.5 Attributes

None.

3.1.4.54.6 Groups

None.

3.1.4.54.7 Attribute Groups

None.

3.1.4.55 QueryChildMembersFromDataSource

The **QueryChildMembersFromDataSource** operation uses the data source to retrieve a collection of **child** members for the specified member name.

The following is the **WSDL** port type specification of the **QueryChildMembersFromDataSource WSDL operation**.

```
<wsdl:operation name="QueryChildMembersFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryChildMembersFromDataSourceSoapIn"/>
  <wsdl:output message="tns:QueryChildMembersFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryChildMembersFromDataSourceSoapIn** request message (section 3.1.4.55.1.1), and the **server (2)** responds with a **QueryChildMembersFromDataSourceSoapOut** response message (section 3.1.4.55.1.2) as follows:

- The protocol client sends a **DataSource** complex type (section 2.2.4.85) to use for retrieving members.
- The server (2) sends the corresponding **ArrayOfMember** complex type (section 2.2.4.45).

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.55.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

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Message	Description
QueryChildMembersFromDataSourceSoapIn	The request WSDL message for the **QueryChildMembersFromDataSource** **WSDL operation**.
QueryChildMembersFromDataSourceSoapOut	The response WSDL message for the **QueryChildMembersFromDataSource** WSDL operation.

3.1.4.55.1.1 QueryChildMembersFromDataSourceSoapIn

The request **WSDL message** for the **QueryChildMembersFromDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryChildMembersFromDataSource
```

The **SOAP body** contains the **QueryChildMembersFromDataSource** element.

3.1.4.55.1.2 QueryChildMembersFromDataSourceSoapOut

The response **WSDL message** for the **QueryChildMembersFromDataSource** **WSDL operation**.

The **SOAP body** contains the **QueryChildMembersFromDataSourceResponse** element.

3.1.4.55.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryChildMembersFromDataSource	The input data for the **QueryChildMembersFromDataSource** **WSDL operation**.
QueryChildMembersFromDataSourceResponse	The result data for the **QueryChildMembersFromDataSource** WSDL operation.

3.1.4.55.2.1 QueryChildMembersFromDataSource

The **QueryChildMembersFromDataSource** element specifies the input data for the **QueryChildMembersFromDataSource** **WSDL operation**.

```
<xs:element name="QueryChildMembersFromDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
      <xs:element minOccurs="0" maxOccurs="1" name="memberUniqueName" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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dataSource: The **DataSource** complex type (section 2.2.4.85) to be used in the query. This element MUST NOT be null or empty. The **DataSource** MUST support the query of **child** members for a specified member.

memberUniqueName: A value that uniquely identifies this element within the hierarchy. This value MUST NOT be null or empty, and MUST be less than 255 characters.

3.1.4.55.2.2 QueryChildMembersFromDataSourceResponse

The **QueryChildMembersFromDataSourceResponse** element specifies the result data for the **QueryChildMembersFromDataSource** **WSDL operation**.

```
<xs:element name="QueryChildMembersFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryChildMembersFromDataSourceResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryChildMembersFromDataSourceResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45).

3.1.4.55.3 Complex Types

None.

3.1.4.55.4 Simple Types

None.

3.1.4.55.5 Attributes

None.

3.1.4.55.6 Groups

None.

3.1.4.55.7 Attribute Groups

None.

3.1.4.56 QueryDimensionRootMembers

The **QueryDimensionRootMembers** operation uses a **data source (1)** from the repository location for the specified member, and returns a collection of root members.

The following is the **WSDL** port type specification of the **QueryDimensionRootMembers** **WSDL operation**.

```
<wsdl:operation name="QueryDimensionRootMembers"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryDimensionRootMembersSoapIn"/>
  <wsdl:output message="tns:QueryDimensionRootMembersSoapOut"/>
```


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```
</wsdl:operation>
```

The protocol client sends a **QueryDimensionRootMembersSoapIn** request message (section 3.1.4.56.1.1), and the **server (2)** responds with a **QueryDimensionRootMembersSoapOut** response message (section 3.1.4.56.1.2) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the data source to use for retrieving members.
- The server (2) sends the corresponding **ArrayOfMember** complex type (section 2.2.4.45).

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.56.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryDimensionRootMembersSoapIn	The request WSDL message for the **QueryDimensionRootMembers WSDL operation**.
QueryDimensionRootMembersSoapOut	The response WSDL message for the **QueryDimensionRootMembers** WSDL operation.

3.1.4.56.1.1 QueryDimensionRootMembersSoapIn

The request **WSDL message** for the **QueryDimensionRootMembers WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryDimensionRootMembers
```

The **SOAP body** contains the **QueryDimensionRootMembers** element.

3.1.4.56.1.2 QueryDimensionRootMembersSoapOut

The response **WSDL message** for the **QueryDimensionRootMembers WSDL operation**.

The **SOAP body** contains the **QueryDimensionRootMembersResponse** element.

3.1.4.56.2 Elements

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The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryDimensionRootMembers	The input data for the **QueryDimensionRootMembers WSDL operation**.
QueryDimensionRootMembersResponse	The result data for the **QueryDimensionRootMembers** WSDL operation.

3.1.4.56.2.1 QueryDimensionRootMembers

The **QueryDimensionRootMembers** element specifies the input data for the **QueryDimensionRootMembers WSDL operation**.

```
<xs:element name="QueryDimensionRootMembers" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="dimensionName" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: The **RepositoryLocation** complex type (section 2.2.4.161) that specifies the location of the data source for the **members (2)** on the **server (2)**.

- The **RepositoryLocation** object MUST NOT be null or empty.
- The **RepositoryLocation** object MUST NOT be a fully specified **URL**.
- The **RepositoryLocation** object MUST be the location of the data source that allows the query of root members for a specified member name.

dimensionName: A value that uniquely identifies this **dimension**. The value MUST be less than 255 characters and MUST NOT be null or empty.

3.1.4.56.2.2 QueryDimensionRootMembersResponse

The **QueryDimensionRootMembersResponse** element specifies the result data for the **QueryDimensionRootMembers WSDL operation**.

```
<xs:element name="QueryDimensionRootMembersResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryDimensionRootMembersResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryDimensionRootMembersResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45).

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3.1.4.56.3 Complex Types

None.

3.1.4.56.4 Simple Types

None.

3.1.4.56.5 Attributes

None.

3.1.4.56.6 Groups

None.

3.1.4.56.7 Attribute Groups

None.

3.1.4.57 QueryDimensionRootMembersFromDataSource

The **QueryDimensionRootMemebersFromDataSource** method uses the data source to retrieve a collection of root members for the specified member name.

The following is the **WSDL** port type specification of the **QueryDimensionRootMembersFromDataSource** **WSDL operation**.

```
<wsdl:operation name="QueryDimensionRootMembersFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryDimensionRootMembersFromDataSourceSoapIn"/>
  <wsdl:output message="tns:QueryDimensionRootMembersFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryDimensionRootMembersFromDataSourceSoapIn** request message (section 3.1.4.57.1.1), and the **server (2)** responds with a **QueryDimensionRootMembersFromDataSourceSoapOut** response message (section 3.1.4.57.1.2) as follows:

- The protocol client sends a **DataSource** complex type (section 2.2.4.85) to use for retrieving members.
- The server (2) sends the corresponding **ArrayOfMember** complex type (section 2.2.4.45).

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.57.1 Messages

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The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryDimensionRootMembersFromDataSourceSoapIn	The request WSDL message for the **QueryDimensionRootMembersFromDataSource WSDL operation**.
QueryDimensionRootMembersFromDataSourceSoapOut	The response WSDL message for the **QueryDimensionRootMembersFromDataSource** WSDL operation.

3.1.4.57.1.1 QueryDimensionRootMembersFromDataSourceSoapIn

The request **WSDL message** for the **QueryDimensionRootMembersFromDataSource WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryDimensionRootMembersFromDataSource
```

The **SOAP body** contains the **QueryDimensionRootMembersFromDataSource** element.

3.1.4.57.1.2 QueryDimensionRootMembersFromDataSourceSoapOut

The response **WSDL message** for the **QueryDimensionRootMembersFromDataSource WSDL operation**.

The **SOAP body** contains the **QueryDimensionRootMembersFromDataSourceResponse** element.

3.1.4.57.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryDimensionRootMembersFromDataSource	The input data for the **QueryDimensionRootMembersFromDataSource WSDL operation**.
QueryDimensionRootMembersFromDataSourceResponse	The result data for the **QueryDimensionRootMembersFromDataSource** WSDL operation.

3.1.4.57.2.1 QueryDimensionRootMembersFromDataSource

The **QueryDimensionRootMembersFromDataSource** element specifies the input data for the **QueryDimensionRootMembersFromDataSource WSDL operation**.

```
<xs:element name="QueryDimensionRootMembersFromDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
```


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```
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
      <xs:element minOccurs="0" maxOccurs="1" name="dimensionName" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **DataSource** complex type (section 2.2.4.85) to be used in the query. This element MUST NOT be null or empty. The **DataSource** MUST support the query of root members for a specified **dimension**.

dimensionName: A value that uniquely identifies this dimension. This value MUST NOT be null or empty and MUST be less than 255 characters.

3.1.4.57.2.2 QueryDimensionRootMembersFromDataSourceResponse

The **QueryDimensionRootMembersFromDataSourceResponse** element specifies the result data for the **QueryDimensionRootMembersFromDataSource** **WSDL operation**.

```
<xs:element name="QueryDimensionRootMembersFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1"
name="QueryDimensionRootMembersFromDataSourceResult" type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryDimensionRootMembersFromDataSourceResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45).

3.1.4.57.3 Complex Types

None.

3.1.4.57.4 Simple Types

None.

3.1.4.57.5 Attributes

None.

3.1.4.57.6 Groups

None.

3.1.4.57.7 Attribute Groups

None.

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3.1.4.58 QueryNamedSets

The **QueryNamedSets** operation is used to retrieve the **named sets** that are defined by a **data source (1)** when given the **RepositoryLocation** complex type (section 2.2.4.161) of the data source (1).

The following is the **WSDL** port type specification of the **QueryNamedSets WSDL operation**.

```
<wsdl:operation name="QueryNamedSets" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryNamedSetsSoapIn"/>
  <wsdl:output message="tns:QueryNamedSetsSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryNamedSetsSoapIn** request message (section 3.1.4.58.1.1), and the **server (2)** responds with a **QueryNamedSetsSoapOut** response message (section 3.1.4.58.1.2) as follows:

- Receives a **RepositoryLocation** for the data source (1) to be queried for named sets.
- The server (2) queries the corresponding data source (1).
- The server (2) responds with the result.
- In the event that a data source (1) cannot be retrieved for the query, the server (2) SHOULD<41> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.58.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryNamedSetsSoapIn	The request WSDL message for the **QueryNamedSets WSDL operation**.
QueryNamedSetsSoapOut	The response WSDL message for the **QueryNamedSets** WSDL operation.

3.1.4.58.1.1 QueryNamedSetsSoapIn

The request **WSDL message** for the **QueryNamedSets WSDL operation**.

The **SOAP action** value is:

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```
http://www.microsoft.com/performancepoint/scorecards/QueryNamedSets
```

The **SOAP body** contains the **QueryNamedSets** element.

3.1.4.58.1.2 QueryNamedSetsSoapOut

The response **WSDL message** for the **QueryNamedSets WSDL operation**.

The **SOAP body** contains the **QueryNamedSetsResponse** element.

3.1.4.58.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryNamedSets	The input data for the **QueryNamedSets WSDL operation**.
QueryNamedSetsResponse	The result data for the **QueryNamedSets** WSDL operation.

3.1.4.58.2.1 QueryNamedSets

The **QueryNamedSets** element specifies the input data for the **QueryNamedSets WSDL operation**.

```
<xs:element name="QueryNamedSets" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: The location (as specified in the complex type **RepositoryLocation** section 2.2.4.161) for the **data source (1)** being queried for **named sets**. This element MUST be present. It MUST be a **RepositoryLocation** to a data source (1).

3.1.4.58.2.2 QueryNamedSetsResponse

The **QueryNamedSetsResponse** element specifies the result data for the **QueryNamedSets WSDL operation**.

```
<xs:element name="QueryNamedSetsResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryNamedSetsResult"
type="tns:ArrayOfNamedSet"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryNamedSetsResult: This element MUST be either a collection of **NamedSet** complex type objects (section 2.2.4.147), specified in the **ArrayOfNamedSet** complex type (section 2.2.4.47), or null, if there are no **named sets** defined for the **data source (1)**.

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3.1.4.58.3 Complex Types

None.

3.1.4.58.4 Simple Types

None.

3.1.4.58.5 Attributes

None.

3.1.4.58.6 Groups

None.

3.1.4.58.7 Attribute Groups

None.

3.1.4.59 QueryNamedSetsFromDataSource

The **QueryNamedSetsFromDataSource** operation is used to retrieve the **named sets** that are defined by the given **data source (1)**.

The following is the **WSDL** port type specification of the **QueryNamedSetsFromDataSource WSDL operation**.

```
<wsdl:operation name="QueryNamedSetsFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryNamedSetsFromDataSourceSoapIn"/>
  <wsdl:output message="tns:QueryNamedSetsFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryNamedSetsFromDataSourceSoapIn** request message (section 3.1.4.59.1.1), and the **server (2)** responds with a **QueryNamedSetsFromDataSourceSoapOut** response message (section 3.1.4.59.1.2) as follows:

- Receives a **DataSource** complex type (section 2.2.4.85) to be queried for named sets.
- The server (2) queries the received data source (1).
- The server (2) responds with the result.
- In the event that a data source (1) cannot be retrieved for obtaining the named sets, the server (2) SHOULD<42> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

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In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.59.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryNamedSetsFromDataSourceSoapIn	The request WSDL message for the **QueryNamedSetsFromDataSource WSDL operation**.
QueryNamedSetsFromDataSourceSoapOut	The response WSDL message for the **QueryNamedSetsFromDataSource** WSDL operation.

3.1.4.59.1.1 QueryNamedSetsFromDataSourceSoapIn

The request **WSDL message** for the **QueryNamedSetsFromDataSource WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryNamedSetsFromDataSource
```

The **SOAP body** contains the **QueryNamedSetsFromDataSource** element.

3.1.4.59.1.2 QueryNamedSetsFromDataSourceSoapOut

The response **WSDL message** for the **QueryNamedSetsFromDataSource WSDL operation**.

The **SOAP body** contains the **QueryNamedSetsFromDataSourceResponse** element.

3.1.4.59.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryNamedSetsFromDataSource	The input data for the **QueryNamedSetsFromDataSource WSDL operation**.
QueryNamedSetsFromDataSourceResponse	The result data for the **QueryNamedSetsFromDataSource** WSDL operation.

3.1.4.59.2.1 QueryNamedSetsFromDataSource

The **QueryNamedSetsFromDataSource** element specifies the input data for the **QueryNamedSetsFromDataSource WSDL operation**.

```
<xs:element name="QueryNamedSetsFromDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
```


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```
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **data source (1)** to be queried for **named sets**, as specified in the **DataSource** complex type (section 2.2.4.85). This element MUST be present.

3.1.4.59.2.2 QueryNamedSetsFromDataSourceResponse

The **QueryNamedSetsFromDataSourceResponse** element specifies the result data for the **QueryNamedSetsFromDataSource WSDL operation**.

```
<xs:element name="QueryNamedSetsFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryNamedSetsFromDataSourceResult"
type="tns:ArrayOfNamedSet"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryNamedSetsFromDataSourceResult: This element MUST be either a collection of **NamedSet** complex type objects (section 2.2.4.147), specified in the **ArrayOfNamedSet** complex type (section 2.2.4.47), or null, if there are no **named sets** defined for the **data source (1)**.

3.1.4.59.3 Complex Types

None.

3.1.4.59.4 Simple Types

None.

3.1.4.59.5 Attributes

None.

3.1.4.59.6 Groups

None.

3.1.4.59.7 Attribute Groups

None.

3.1.4.60 QueryRelatedMember

The **QueryRelatedMember** operation is used to retrieve a **member (2)** having the specified relationship to the specified member from the **data source (1)** at the given **RepositoryLocation** complex type (section 2.2.4.161).

The following is the **WSDL** port type specification of the **QueryRelatedMember WSDL operation**.

```
<wsdl:operation name="QueryRelatedMember" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
```


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```
    <wsdl:input message="tns:QueryRelatedMemberSoapIn"/>
    <wsdl:output message="tns:QueryRelatedMemberSoapOut"/>
  </wsdl:operation>
```

The protocol client sends a **QueryRelatedMemberSoapIn** request message (section 3.1.4.60.1.1), and the **server (2)** responds with a **QueryRelatedMemberSoapOut** response message (section 3.1.4.60.1.2) as follows:

- Receives a **RepositoryLocation** for the data source (1) to be queried for a related member (2) along with the unique member (2) name and the **MemberRelationship** simple type (section 2.2.5.36) being queried for.
- The server (2) queries the corresponding data source (1) for the related member (3).
- The server (2) responds with the result.
- In the event that a data source (1) cannot be retrieved from the **RepositoryLocation**, the server (2) SHOULD<43> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.60.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryRelatedMemberSoapIn	The request WSDL message for the **QueryRelatedMember** **WSDL operation**.
QueryRelatedMemberSoapOut	The response WSDL message for the **QueryRelatedMember** WSDL operation.

3.1.4.60.1.1 QueryRelatedMemberSoapIn

The request **WSDL message** for the **QueryRelatedMember** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryRelatedMember
```

The **SOAP body** contains the **QueryRelatedMember** element.

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3.1.4.60.1.2 QueryRelatedMemberSoapOut

The response **WSDL message** for the **QueryRelatedMember WSDL operation**.

The **SOAP body** contains the **QueryRelatedMemberResponse** element.

3.1.4.60.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryRelatedMember	The input data for the **QueryRelatedMember WSDL operation**.
QueryRelatedMemberResponse	The result data for the **QueryRelatedMember** WSDL operation.

3.1.4.60.2.1 QueryRelatedMember

The **QueryRelatedMember** element specifies the input data for the **QueryRelatedMember WSDL operation**.

```
<xs:element name="QueryRelatedMember" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="memberUniqueName" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="relationship"
type="tns:MemberRelationship"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: The location (as specified in the complex type **RepositoryLocation** complex type section 2.2.4.161) for the **data source (1)** being queried for a related **member (2)**. This element MUST be present. It MUST be a **RepositoryLocation** to a data source (1).

memberUniqueName: A value that uniquely identifies this element within the data source (1).

relationship: The relationship, as specified in the simple type **MemberRelationship** (section 2.2.5.36), between **memberUniqueName** and the result.

3.1.4.60.2.2 QueryRelatedMemberResponse

The **QueryRelatedMemberResponse** element specifies the result data for the **QueryRelatedMember WSDL operation**.

```
<xs:element name="QueryRelatedMemberResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryRelatedMemberResult"
type="tns:Member"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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QueryRelatedMemberResult: This element MUST be either the related **member (2)** as specified in the **Member** complex type (section 2.2.4.134), or null**,** if there are no related members (2), or if the **MemberRelationship** simple type (section 2.2.5.36) is "Children".

3.1.4.60.3 Complex Types

None.

3.1.4.60.4 Simple Types

None.

3.1.4.60.5 Attributes

None.

3.1.4.60.6 Groups

None.

3.1.4.60.7 Attribute Groups

None.

3.1.4.61 QueryRelatedMemberFromDataSource

The **QueryRelatedMemberFromDataSource** operation queries the given **data source (1)** for the **member (2)** having the specified relationship to the specified member.

The following is the **WSDL** port type specification of the **QueryRelatedMemberFromDataSource WSDL operation**.

```
<wsdl:operation name="QueryRelatedMemberFromDataSource"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryRelatedMemberFromDataSourceSoapIn"/>
  <wsdl:output message="tns:QueryRelatedMemberFromDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryRelatedMemberFromDataSourceSoapIn** request message (section 3.1.4.61.1.1) and the **server (2)** responds with a **QueryRelatedMemberFromDataSourceSoapOut** response message (section 3.1.4.61.1.2) as follows:

- Receives a **DataSource** complex type (section 2.2.4.85) to be queried for the related member (2) along with the unique member (2) name and the **MemberRelationship** simple type (section 2.2.5.36) being queried for.
- The server (2) queries the corresponding data source (1) for the related member (2).
- The server (2) responds with the result.
- In the event that a data source (1) cannot be retrieved for the query, the server (2) SHOULD<44> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

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Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.61.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryRelatedMemberFromDataSourceSoapIn	The request WSDL message for the **QueryRelatedMemberFromDataSource** **WSDL operation**.
QueryRelatedMemberFromDataSourceSoapOut	The response WSDL message for the **QueryRelatedMemberFromDataSource** WSDL operation.

3.1.4.61.1.1 QueryRelatedMemberFromDataSourceSoapIn

The request **WSDL message** for the **QueryRelatedMemberFromDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryRelatedMemberFromDataSource
```

The **SOAP body** contains the **QueryRelatedMemberFromDataSource** element.

3.1.4.61.1.2 QueryRelatedMemberFromDataSourceSoapOut

The response **WSDL message** for the **QueryRelatedMemberFromDataSource** **WSDL operation**.

The **SOAP body** contains the **QueryRelatedMemberFromDataSourceResponse** element.

3.1.4.61.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryRelatedMemberFromDataSource	The input data for the **QueryRelatedMemberFromDataSource** **WSDL operation**.

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Element	Description
QueryRelatedMemberFromDataSourceResponse	The result data for the **QueryRelatedMemberFromDataSource** WSDL operation.

3.1.4.61.2.1 QueryRelatedMemberFromDataSource

The **QueryRelatedMemberFromDataSource** element specifies the input data for the **QueryRelatedMemberFromDataSource** **WSDL operation**.

```
<xs:element name="QueryRelatedMemberFromDataSource"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
      <xs:element minOccurs="0" maxOccurs="1" name="memberUniqueName" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="relationship"
type="tns:MemberRelationship"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **data source (1)** to be queried for a related member, as specified in the **DataSource** complex type (section 2.2.4.85). This element MUST be present.

memberUniqueName: A value that uniquely identifies this element within the data source (1).

relationship: The relationship, as specified in the **MemberRelationship** simple type (section 2.2.5.36), between **memberUniqueName** and the result.

3.1.4.61.2.2 QueryRelatedMemberFromDataSourceResponse

The **QueryRelatedMemberFromDataSourceResponse** element specifies the result data for the **QueryRelatedMemberFromDataSource** **WSDL operation**.

```
<xs:element name="QueryRelatedMemberFromDataSourceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryRelatedMemberFromDataSourceResult"
type="tns:Member"/>
    </xs:sequence>
  </xs:complexType>

</xs:element>
```

QueryRelatedMemberFromDataSourceResult: This element MUST be either the related **member (2)** as specified in the **Member** complex type (section 2.2.4.134), or null**,** if there are no related members (2).

3.1.4.61.3 Complex Types

None.

3.1.4.61.4 Simple Types

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None.

3.1.4.61.5 Attributes

None.

3.1.4.61.6 Groups

None.

3.1.4.61.7 Attribute Groups

None.

3.1.4.62 QueryTimeIntelligence

The **QueryTimeIntelligence** operation queries a **data source (1)** location for the **members (2)** that are specified by a **time intelligence** formula.

The following is the **WSDL** port type specification of the **QueryTimeIntelligence** **WSDL operation**.

```
<wsdl:operation name="QueryTimeIntelligence" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryTimeIntelligenceSoapIn"/>
  <wsdl:output message="tns:QueryTimeIntelligenceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryTimeIntelligenceSoapIn** request message (section 3.1.4.62.1.1), and the **server (2)** responds with a **QueryTimeIntelligenceSoapOut** response message (section 3.1.4.62.1.2) as follows:

- Receives **RepositoryLocation** complex type (section 2.2.4.161) for the data source (1) to be queried for time intelligence, along with the current time and date and a formula.
- The server (2) queries the corresponding data source (1) using the current time and date and **formula** for the related member (2).
- The server (2) responds with the result.
- In the event that a data source (1) cannot be retrieved from the **RepositoryLocation**, the server (2) SHOULD<45> return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
TimeIntelligenceNotConfigured	The data source (1) has an invalid time intelligence configuration or time intelligence is not configured.
InvalidTimeIntelligenceFormula	The time intelligence formula is invalid
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

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3.1.4.62.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryTimeIntelligenceSoapIn	The request WSDL message for the **QueryTimeIntelligence** **WSDL operation**.
QueryTimeIntelligenceSoapOut	The response WSDL message for the **QueryTimeIntelligence** WSDL operation.

3.1.4.62.1.1 QueryTimeIntelligenceSoapIn

The request **WSDL message** for the **QueryTimeIntelligence** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryTimeIntelligence
```

The **SOAP body** contains the **QueryTimeIntelligence** element.

3.1.4.62.1.2 QueryTimeIntelligenceSoapOut

The response **WSDL message** for the **QueryTimeIntelligence** **WSDL operation**.

The **SOAP body** contains the **QueryTimeIntelligenceResponse** element.

3.1.4.62.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryTimeIntelligence	The input data for the **QueryTimeIntelligence** **WSDL operation**.
QueryTimeIntelligenceResponse	The result data for the **QueryTimeIntelligence** WSDL operation.

3.1.4.62.2.1 QueryTimeIntelligence

The **QueryTimeIntelligence** element specifies the input data for the **QueryTimeIntelligence** **WSDL operation**.

```
<xs:element name="QueryTimeIntelligence" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="1" maxOccurs="1" name="currentTime" type="xs:dateTime"/>
      <xs:element minOccurs="0" maxOccurs="1" name="formula" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
```


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```
</xs:element>
```

dataSourceLocation: The location (for specification see the **RepositoryLocation** complex type section 2.2.4.161) for the **data source (1)** being queried for **time intelligence**. This element MUST be present. It MUST be a **RepositoryLocation** to a data source.

currentTime: The current time and date. This element MUST be present, and its value MUST be a valid **dateTime**.

formula: The STPS formula, as described in [MSFT-TimeIntelligence]. This element MUST be present, and its value MUST be a STPS formula for the data source.

3.1.4.62.2.2 QueryTimeIntelligenceResponse

The **QueryTimeIntelligenceResponse** element specifies the result data for the **QueryTimeIntelligence** **WSDL operation**.

```
<xs:element name="QueryTimeIntelligenceResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryTimeIntelligenceResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryTimeIntelligenceResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45). If there are no **Members** returned from the specified formula, **ArrayOfMember** MUST contain a single **Member** where the **Member's Expression** attribute MUST be set to "NULL".

3.1.4.62.3 Complex Types

None.

3.1.4.62.4 Simple Types

None.

3.1.4.62.5 Attributes

None.

3.1.4.62.6 Groups

None.

3.1.4.62.7 Attribute Groups

None.

3.1.4.63 QueryTimeIntelligenceDirect

The **QueryTimeIntelligenceDirect** operation queries the provided **data source (1)** for the **members (2)** that are specified by a **time intelligence** formula.

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The following is the **WSDL** port type specification of the **QueryTimeIntelligenceDirect WSDL operation**.

```
<wsdl:operation name="QueryTimeIntelligenceDirect"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryTimeIntelligenceDirectSoapIn"/>
  <wsdl:output message="tns:QueryTimeIntelligenceDirectSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **QueryTimeIntelligenceDirectSoapIn** request message (section 3.1.4.63.1.1), and the **server (2)** responds with a **QueryTimeIntelligenceDirectSoapOut** response message (section 3.1.4.63.1.2) as follows:

- Receives a **DataSource** complex type (section 2.2.4.85) to be queried for the time intelligence, along with the current time and date and a formula.
- The server (2) queries the corresponding data source (1) using the current time and date and **formula** for the related member (2).
- The server (2) responds with the result.
- In the event that a data source (1) cannot be retrieved for the query, the server (2) SHOULD return a **SOAP fault** response, as detailed in section 2.2.2.1.

Exceptions:

Error code	Description
FCOReadFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOReadFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
TimeIntelligenceNotConfigured	The data source (1) has an invalid time intelligence configuration or time intelligence is not configured.
InvalidTimeIntelligenceFormula	The time intelligence formula is invalid.
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.63.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryTimeIntelligenceDirectSoapIn	The request WSDL message for the **QueryTimeIntelligenceDirect WSDL operation**.
QueryTimeIntelligenceDirectSoapOut	The response WSDL message for the **QueryTimeIntelligenceDirect** WSDL operation.

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3.1.4.63.1.1 QueryTimeIntelligenceDirectSoapIn

The request **WSDL message** for the **QueryTimeIntelligenceDirect** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryTimeIntelligenceDirect
```

The **SOAP body** contains the **QueryTimeIntelligenceDirect** element.

3.1.4.63.1.2 QueryTimeIntelligenceDirectSoapOut

The response **WSDL message** for the **QueryTimeIntelligenceDirect** **WSDL operation**.

The **SOAP body** contains the **QueryTimeIntelligenceDirectResponse** element.

3.1.4.63.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
QueryTimeIntelligenceDirect	The input data for the **QueryTimeIntelligenceDirect** **WSDL operation**.
QueryTimeIntelligenceDirectResponse	The result data for the **QueryTimeIntelligenceDirect** WSDL operation.

3.1.4.63.2.1 QueryTimeIntelligenceDirect

The **QueryTimeIntelligenceDirect** element specifies the input data for the **QueryTimeIntelligenceDirect** **WSDL operation**.

```
<xs:element name="QueryTimeIntelligenceDirect" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
      <xs:element minOccurs="1" maxOccurs="1" name="currentTime" type="xs:dateTime"/>
      <xs:element minOccurs="0" maxOccurs="1" name="formula" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>

</xs:element>
```

dataSource: The **data source (1)** to be queried for **time intelligence** members. See the **DataSource** complex type (section 2.2.4.85) for specification. This element MUST be present.

currentTime: The current time and date. This element MUST be present, and its value MUST be a valid **dateTime**.

formula: The STPS formula. This element MUST be present, and its value MUST be a STPS formula for the data source.

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3.1.4.63.2.2 QueryTimeIntelligenceDirectResponse

The **QueryTimeIntelligenceDirectResponse** element specifies the result data for the **QueryTimeIntelligenceDirect** **WSDL operation**.

```
<xs:element name="QueryTimeIntelligenceDirectResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="QueryTimeIntelligenceDirectResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryTimeIntelligenceDirectResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45). If there are no **Members** returned from the specified formula, **ArrayOfMember** MUST contain a single **Member** where the **Member's Expression** attribute MUST be set to "NULL".

3.1.4.63.3 Complex Types

None.

3.1.4.63.4 Simple Types

None.

3.1.4.63.5 Attributes

None.

3.1.4.63.6 Groups

None.

3.1.4.63.7 Attribute Groups

None.

3.1.4.64 QueryTransformMembers

The **QueryTransformMembers** method **transforms** any collection of **Member** complex types (section 2.2.4.134) into a new member collection based on the operation passed on the **transformType** parameter of the **QueryTransformMembers** element (section 3.1.4.64.2.1) as specified in section 3.1.4.64.4.1.

The following is the **WSDL** port type specification of the **QueryTransformMembers** **WSDL operation**.

```
<wsdl:operation name="QueryTransformMembers" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:QueryTransformMembersSoapIn"/>
  <wsdl:output message="tns:QueryTransformMembersSoapOut"/>
</wsdl:operation>
```


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The protocol client sends a **QueryTransformMembersSoapIn** request message (section 3.1.4.64.1.1), and the **server (2)** responds with a **QueryTransformMembersSoapOut** response message (section 3.1.4.64.1.1) as follows:

- The protocol client sends a **RepositoryLocation** complex type (section 2.2.4.161) for the data source to use for retrieving members.
- The server (2) sends a corresponding **ArrayOfMember** complex type (see section 2.2.4.45).

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.64.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
QueryTransformMembersSoapIn	The request WSDL message for the **QueryTransformMembers** **WSDL operation**.
QueryTransformMembersSoapOut	The response WSDL message for the **QueryTransformMembers** WSDL operation.

3.1.4.64.1.1 QueryTransformMembersSoapIn

The request **WSDL message** for the **QueryTransformMembers** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/QueryTransformMembers
```

The **SOAP body** contains the **QueryTransformMembers** element.

3.1.4.64.1.2 QueryTransformMembersSoapOut

The response **WSDL message** for the **QueryTransformMembers** **WSDL operation**.

The **SOAP body** contains the **QueryTransformMembersResponse** element.

3.1.4.64.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

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Element	Description
QueryTransformMembers	The input data for the **QueryTransformMembers** **WSDL operation**.
QueryTransformMembersResponse	The result data for the **QueryTransformMembers** WSDL operation.

3.1.4.64.2.1 QueryTransformMembers

The **QueryTransformMembers** element specifies the input data for the **QueryTransformMembers** **WSDL operation**.

```
<xs:element name="QueryTransformMembers" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="memberCollection"
type="tns:ArrayOfMember"/>
      <xs:element minOccurs="1" maxOccurs="1" name="transformType"
type="tns:QueryTransformMembersType"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSourceLocation: A **RepositoryLocation** complex type object (section 2.2.4.161) that specifies the location of data source for the **members (2)** on the **server (2)**.

- The **RepositoryLocation** object MUST NOT be null or empty.
- The **RepositoryLocation** object MUST NOT be a fully specified **URL**.
- The **RepositoryLocation** object MUST be the location of the data source that allows the query of **child** members for a specified member name.

memberCollection: A collection of **Member** complex types (section 2.2.4.134) that will be transformed based on the type of transformation specified in the **transformType** parameter.

transformType: Type of operation specified in the **QueryTransformMembersType** simple type (section 3.1.4.64.4.1) that will be applied to the member collection.

3.1.4.64.2.2 QueryTransformMembersResponse

The **QueryTransformMembersResponse** element specifies the result data for the **QueryTransformMembers** **WSDL operation**.

```
<xs:element name="QueryTransformMembersResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>

      <xs:element minOccurs="0" maxOccurs="1" name="QueryTransformMembersResult"
type="tns:ArrayOfMember"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

QueryTransformMembersResult: This element MUST contain a collection of **Member** complex type objects (section 2.2.4.134), as specified in the **ArrayOfMember** complex type (section 2.2.4.45).

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3.1.4.64.3 Complex Types

None.

3.1.4.64.4 Simple Types

The following table summarizes the **XML schema** simple type definitions that are specific to this operation.

Simple type	Description
QueryTransformMembersType	Specifies the transformation type that will be applied to the collection of member.

3.1.4.64.4.1 QueryTransformMembersType

Namespace: http://www.microsoft.com/performancepoint/scorecards

Specifies the transformation type that will be applied to the collection of **Member** complex types (section 2.2.4.134).

```
<xs:simpleType name="QueryTransformMembersType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Hierarchize"/>
    <xs:enumeration value="Parents"/>
    <xs:enumeration value="Ancestors"/>
    <xs:enumeration value="AscendantsIntersect"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **QueryTransformMembersType** simple type.

Value	Meaning
Hierarchize	Returns the hierarchized representation of the member set.
Parents	Returns the parent of each member on the set. This operation type is reserved and MUST NOT be called.
Ancestors	Returns the ancestor of each member on the set. This operation type is reserved and MUST NOT be called.
AscendantsIntersect	Returns the original set plus any direct ancestor contained in the set.

3.1.4.64.5 Attributes

None.

3.1.4.64.6 Groups

None.

3.1.4.64.7 Attribute Groups

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None.

3.1.4.65 SaveTemporaryAnalyticReport

The **SaveTemporaryAnalyticReport** operation stores a temporary copy of a **ReportView** complex type (section 2.2.4.160) to the **server (2)**.

The following is the **WSDL** port type specification of the **SaveTemporaryAnalyticReport WSDL operation**.

```
<wsdl:operation name="SaveTemporaryAnalyticReport"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:SaveTemporaryAnalyticReportSoapIn"/>
  <wsdl:output message="tns:SaveTemporaryAnalyticReportSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **SaveTemporaryAnalyticReportSoapIn** request message (section 3.1.4.65.1.1), and the server (2) responds with a **SaveTemporaryAnalyticReportSoapOut** response message (section 3.1.4.65.1.2) as follows:

- The protocol client MUST send a **ReportView**.
- If the server (2) contains a **ReportView** where all attributes and elements except **Location** equal those of the passed in **ReportView**, the server (2) MUST return the **GUID** of the **ReportView** on the server (2). The GUID MUST be equal to the **RepositoryLocation** complex type's (section 2.2.4.161) **ItemGuid** GUID. The stored **ReportView** MUST NOT be altered.
- If the server (2) does not contain a **ReportView** where all attributes and elements except **Location** equal those of the passed in **ReportView**, the server (2) MUST store a copy of the **ReportView** and MUST return a unique GUID for it. The server (2) MUST replace the **Location** element for the stored copy which MUST conform to the schema of the **RepositoryLocation**, such that the **ItemType** attribute equals **TempReportView**, as specified in the **FirstClassObjectType** simple type (section 2.2.5.20), and the **ItemGuid** attribute equals the returned GUID.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.65.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
SaveTemporaryAnalyticReportSoapIn	The request WSDL message for the **SaveTemporaryAnalyticReport WSDL operation**.
SaveTemporaryAnalyticReportSoapOut	The response WSDL message for the **SaveTemporaryAnalyticReport** WSDL operation.

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3.1.4.65.1.1 SaveTemporaryAnalyticReportSoapIn

The request **WSDL message** for the **SaveTemporaryAnalyticReport WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/SaveTemporaryAnalyticReport
```

The **SOAP body** contains the **SaveTemporaryAnalyticReport** element.

3.1.4.65.1.2 SaveTemporaryAnalyticReportSoapOut

The response **WSDL message** for the **SaveTemporaryAnalyticReport WSDL operation**.

The **SOAP body** contains the **SaveTemporaryAnalyticReportResponse** element.

3.1.4.65.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
SaveTemporaryAnalyticReport	The input data for the **SaveTemporaryAnalyticReport WSDL operation**.
SaveTemporaryAnalyticReportResponse	The result data for the **SaveTemporaryAnalyticReport** WSDL operation.

3.1.4.65.2.1 SaveTemporaryAnalyticReport

The **SaveTemporaryAnalyticReport** element specifies the input data for the **SaveTemporaryAnalyticReport WSDL operation**.

```
<xs:element name="SaveTemporaryAnalyticReport" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="reportView" type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

reportView: The **report view** to store. This element MUST be present and MUST conform to the schema of the **ReportView** complex type (section 2.2.4.160).

3.1.4.65.2.2 SaveTemporaryAnalyticReportResponse

The **SaveTemporaryAnalyticReportResponse** element specifies the result data for the **SaveTemporaryAnalyticReport WSDL operation**.

```
<xs:element name="SaveTemporaryAnalyticReportResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="SaveTemporaryAnalyticReportResult"
xmlns:s1="http://microsoft.com/wsdl/types/" type="s1:guid"/>
```


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```
      </xs:sequence>
    </xs:complexType>
  </xs:element>
```

SaveTemporaryAnalyticReportResult: A **GUID** that uniquely identifies a **ReportView** complex type (section 2.2.4.160) and the values of all attributes and elements except **Location**. This element MUST be present.

3.1.4.65.3 Complex Types

None.

3.1.4.65.4 Simple Types

None.

3.1.4.65.5 Attributes

None.

3.1.4.65.6 Groups

None.

3.1.4.65.7 Attribute Groups

None.

3.1.4.66 TestConnection

The **TestConnection** operation is used to determine whether a connection as specified by the **dataSource** element can be established.

The following is the **WSDL** port type specification of the **TestConnection WSDL operation**.

```
<wsdl:operation name="TestConnection" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:TestConnectionSoapIn"/>
  <wsdl:output message="tns:TestConnectionSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **TestConnectionSoapIn** request message (section 3.1.4.66.1.1), and the **server (2)** responds with a **TestConnectionSoapOut** response message (section 3.1.4.66.1.2) as follows:

- The protocol client MUST set the **dataSource** element to a non-empty value. If the **Location** attribute of the **dataSource** element refers to a location for which the user does not have read permissions, the server (2) MUST return a **SOAP fault** containing the error code **InvalidPermission**.
- The server (2) MUST return **TRUE** if a connection as specified by the **data source (1)** can be established, and if the **Location** attribute of the **dataSource** element refers to a **trusted location**. Otherwise, the server (2) MUST return **FALSE**.
- Any errors that occur while making a connection as specified by the data source (1) MUST NOT result in a SOAP fault, and MUST result in a return value of **FALSE**.

Exceptions:

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Error code	Description
NotTrustedLocation	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1

3.1.4.66.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
TestConnectionSoapIn	The request WSDL message for the **TestConnection** **WSDL operation**.
TestConnectionSoapOut	The response WSDL message for the **TestConnection** WSDL operation.

3.1.4.66.1.1 TestConnectionSoapIn

The request **WSDL message** for the **TestConnection** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/TestConnection
```

The **SOAP body** contains the **TestConnection** element.

3.1.4.66.1.2 TestConnectionSoapOut

The response **WSDL message** for the **TestConnection** **WSDL operation**.

The **SOAP body** contains the **TestConnectionResponse** element.

3.1.4.66.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
TestConnection	The input data for the **TestConnection** **WSDL operation**.
TestConnectionResponse	The result data for the **TestConnection** WSDL operation.

3.1.4.66.2.1 TestConnection

The **TestConnection** element specifies the input data for the **TestConnection** **WSDL operation**.

```
<xs:element name="TestConnection" xmlns:xs="http://www.w3.org/2001/XMLSchema">
```


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```
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The **data source (1)** to be tested. See the **DataSource** complex type (section 2.2.4.85) for specification. This element MUST NOT be empty.

3.1.4.66.2.2 TestConnectionResponse

The **TestConnectionResponse** element specifies the result data for the **TestConnection WSDL operation**.

```
<xs:element name="TestConnectionResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="TestConnectionResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

TestConnectionResult: Set to **TRUE** if the connection specified by the **data source (1)** can be made; otherwise, this element is **FALSE**.

3.1.4.66.3 Complex Types

None.

3.1.4.66.4 Simple Types

None.

3.1.4.66.5 Attributes

None.

3.1.4.66.6 Groups

None.

3.1.4.66.7 Attribute Groups

None.

3.1.4.67 TrimAnnotationByOwner

The **TrimAnnotationByOwner** operation removes all the **Annotation** complex types (section 2.2.4.18) that are owned by a specific user.

The following is the **WSDL** port type specification of the **TrimAnnotationByOwner WSDL operation**.

```
<wsdl:operation name="TrimAnnotationByOwner" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:TrimAnnotationByOwnerSoapIn"/>
  <wsdl:output message="tns:TrimAnnotationByOwnerSoapOut"/>
```


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```
</wsdl:operation>
```

The protocol client sends a **TrimAnnotationByOwnerSoapIn** request message (section 3.1.4.67.1.1), and the **server (2)** responds with a **TrimAnnotationByOwnerSoapOut** response message (section 3.1.4.67.1.2) as follows:

- The protocol client MUST send the name of a user as the **Owner** property of the **TrimAnnotationByOwner** element (section 3.1.4.67.2.1).
- The server (2) MUST delete all **Annotations** for which the **Owner** element equals the **Owner** element of the passed in **TrimAnnotationByOwner** element. The server (2) MUST ignore case when comparing the strings.

Exceptions:

Error code	Description
InvalidPermissionAdmin	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.67.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
TrimAnnotationByOwnerSoapIn	The request WSDL message for the **TrimAnnotationByOwner** **WSDL operation**.
TrimAnnotationByOwnerSoapOut	The response WSDL message for the **TrimAnnotationByOwner** WSDL operation.

3.1.4.67.1.1 TrimAnnotationByOwnerSoapIn

The request **WSDL message** for the **TrimAnnotationByOwner** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationByOwner
```

The **SOAP body** contains the **TrimAnnotationByOwner** element.

3.1.4.67.1.2 TrimAnnotationByOwnerSoapOut

The response **WSDL message** for the **TrimAnnotationByOwner** **WSDL operation**.

The **SOAP body** contains the **TrimAnnotationByOwnerResponse** element.

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3.1.4.67.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
TrimAnnotationByOwner	The input data for the **TrimAnnotationByOwner** **WSDL operation**.
TrimAnnotationByOwnerResponse	The result data for the **TrimAnnotationByOwner** WSDL operation.

3.1.4.67.2.1 TrimAnnotationByOwner

The **TrimAnnotationByOwner** element specifies the input data for the **TrimAnnotationByOwner** **WSDL operation**.

```
<xs:element name="TrimAnnotationByOwner" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="Owner" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Owner: Specifies the name of the user. This element MUST be present and MUST have a length greater than zero.

3.1.4.67.2.2 TrimAnnotationByOwnerResponse

The **TrimAnnotationByOwnerResponse** element specifies the result data for the **TrimAnnotationByOwner** **WSDL operation**.

```
<xs:element name="TrimAnnotationByOwnerResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.67.3 Complex Types

None.

3.1.4.67.4 Simple Types

None.

3.1.4.67.5 Attributes

None.

3.1.4.67.6 Groups

None.

3.1.4.67.7 Attribute Groups

None.

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3.1.4.68 TrimAnnotationByScorecardLocation

The **TrimAnnotationByScorecardLocation** operation removes all the annotations that belong to a **scorecard** at a specific location.

The following is the **WSDL** port type specification of the **TrimAnnotationByScorecardLocation WSDL operation**.

```
<wsdl:operation name="TrimAnnotationByScorecardLocation"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:TrimAnnotationByScorecardLocationSoapIn"/>
  <wsdl:output message="tns:TrimAnnotationByScorecardLocationSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **TrimAnnotationByScorecardLocationSoapIn** request message (section 3.1.4.68.1.1), and the **server (2)** responds with a **TrimAnnotationByScorecardLocationSoapOut** response message (section 3.1.4.68.1.2) as follows:

- The protocol client MUST send the location of a scorecard as the **scorecardLocation** property of the **TrimAnnotationByScorecardLocation** element (section 3.1.4.68.2.1).
- The server (2) MUST delete all **Annotation** complex types (section 2.2.4.18) for which the **ScorecardLocation** element's **ItemUrl** attribute, as specified by **RepositoryLocation** complex type (section 2.2.4.161), equals the **ItemUrl** attribute of the passed in **scorecardLocation** element.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.68.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
TrimAnnotationByScorecardLocationSoapIn	The request WSDL message for the **TrimAnnotationByScorecardLocation WSDL operation**.
TrimAnnotationByScorecardLocationSoapOut	The response WSDL message for the **TrimAnnotationByScorecardLocation** WSDL operation.

3.1.4.68.1.1 TrimAnnotationByScorecardLocationSoapIn

The request **WSDL message** for the **TrimAnnotationByScorecardLocation WSDL operation**.

The **SOAP action** value is:

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```
http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationByScorecardLocation
```

The **SOAP body** contains the **TrimAnnotationByScorecardLocation** element.

3.1.4.68.1.2 TrimAnnotationByScorecardLocationSoapOut

The response **WSDL message** for the **TrimAnnotationByScorecardLocation WSDL operation**.

The **SOAP body** contains the **TrimAnnotationByScorecardLocationResponse** element.

3.1.4.68.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
TrimAnnotationByScorecardLocation	The input data for the **TrimAnnotationByScorecardLocation WSDL operation**.
TrimAnnotationByScorecardLocationResponse	The result data for the **TrimAnnotationByScorecardLocation** WSDL operation.

3.1.4.68.2.1 TrimAnnotationByScorecardLocation

The **TrimAnnotationByScorecardLocation** element specifies the input data for the **TrimAnnotationByScorecardLocation WSDL operation**.

```
<xs:element name="TrimAnnotationByScorecardLocation"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecardLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecardLocation: Specifies the location of the **scorecard** for which all annotations will be deleted. This element MUST conform to the schema of the **RepositoryLocation** complex type (section 2.2.4.161), MUST be present, and the **ItemType** attribute MUST NOT equal **TempReportView**, as specified in the **FirstClassObjectType** complex type (section 2.2.5.20).

3.1.4.68.2.2 TrimAnnotationByScorecardLocationResponse

The **TrimAnnotationByScorecardLocationResponse** element specifies the result data for the **TrimAnnotationByScorecardLocation WSDL operation**.

```
<xs:element name="TrimAnnotationByScorecardLocationResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.68.3 Complex Types

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None.

3.1.4.68.4 Simple Types

None.

3.1.4.68.5 Attributes

None.

3.1.4.68.6 Groups

None.

3.1.4.68.7 Attribute Groups

None.

3.1.4.69 TrimAnnotationUntouchedSince

The **TrimAnnotationUntouchedSince** operation removes all the **Annotation** complex types (section 2.2.4.18) that haven't been updated since the specified date.

The following is the **WSDL** port type specification of the **TrimAnnotationUntouchedSince WSDL operation**.

```
<wsdl:operation name="TrimAnnotationUntouchedSince"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:TrimAnnotationUntouchedSinceSoapIn"/>
  <wsdl:output message="tns:TrimAnnotationUntouchedSinceSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **TrimAnnotationUntouchedSinceSoapIn** request message (section 3.1.4.69.1.1), and the **server (2)** responds with a **TrimAnnotationUntouchedSinceSoapOut** response message (section 3.1.4.69.1.2) as follows:

- The protocol client MUST send the last modified date as the **untouchedSince** property of the **TrimAnnotationUntouchedSince** element (section 3.1.4.69.2.1).
- The server (2) MUST delete all the **Annotations** for which the date specified by **LastUpdatedOn** property is before or equal to the date specified by the client.

Exceptions:

Error code	Description
InvalidPermissionAdmin	User does not have sufficient administration permissions to complete the request.

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.69.1 Messages

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The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
TrimAnnotationUntouchedSinceSoapIn	The request WSDL message for the **TrimAnnotationUntouchedSince WSDL operation**.
TrimAnnotationUntouchedSinceSoapOut	The response WSDL message for the **TrimAnnotationUntouchedSince** WSDL operation.

3.1.4.69.1.1 TrimAnnotationUntouchedSinceSoapIn

The request **WSDL message** for the **TrimAnnotationUntouchedSince WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationUntouchedSince
```

The **SOAP body** contains the **TrimAnnotationUntouchedSince** element.

3.1.4.69.1.2 TrimAnnotationUntouchedSinceSoapOut

The response **WSDL message** for the **TrimAnnotationUntouchedSince WSDL operation**.

The **SOAP body** contains the **TrimAnnotationUntouchedSinceResponse** element.

3.1.4.69.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
TrimAnnotationUntouchedSince	The input data for the **TrimAnnotationUntouchedSince WSDL operation**.
TrimAnnotationUntouchedSinceResponse	The result data for the **TrimAnnotationUntouchedSince** WSDL operation.

3.1.4.69.2.1 TrimAnnotationUntouchedSince

The **TrimAnnotationUntouchedSince** element specifies the input data for the **TrimAnnotationUntouchedSince WSDL operation**.

```
<xs:element name="TrimAnnotationUntouchedSince" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="untouchedSince" type="xs:dateTime"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```


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untouchedSince: Specifies the last modified date of the **Annotation** complex types (section 2.2.4.18) which MUST be deleted. This element MUST be present and MUST be a valid dateTime.

3.1.4.69.2.2 TrimAnnotationUntouchedSinceResponse

The **TrimAnnotationUntouchedSinceResponse** element specifies the result data for the **TrimAnnotationUntouchedSince WSDL operation**.

```
<xs:element name="TrimAnnotationUntouchedSinceResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.69.3 Complex Types

None.

3.1.4.69.4 Simple Types

None.

3.1.4.69.5 Attributes

None.

3.1.4.69.6 Groups

None.

3.1.4.69.7 Attribute Groups

None.

3.1.4.70 UpdateAnnotation

The **UpdateAnnotation** operation updates an existing **Annotation** complex type (section 2.2.4.18).

The following is the **WSDL** port type specification of the **UpdateAnnotation WSDL operation**.

```
<wsdl:operation name="UpdateAnnotation" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateAnnotationSoapIn"/>
  <wsdl:output message="tns:UpdateAnnotationSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateAnnotationSoapIn** request message (section 3.1.4.70.1.1), and the **server (2)** responds with an **UpdateAnnotationSoapOut** response message (section 3.1.4.70.1.2) as follows:

- The protocol client MUST send a valid **Annotation** object that specifies the new state of the annotation that is being updated.
- The server (2) MUST validate the **Annotation** object following the schema of the **Annotation**.
- The server (2) MUST verify that the **Annotation** object exists by using the **AnnotationId** property (see section 3.1.4.23.2.1), and MUST verify that the **Annotation** object is unchanged since received by the client by comparing the **LastModifiedOn** value. If the **LastModifiedOn**

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value is not the same, which means the **Annotation** object has been changed since it was received by the client, the update MUST be ignored and an application error raised using the **Unknown** error code.

- The server (2) MUST update the stored copy of the **Annotation** object and SHOULD generate a new **LastModifiedOn** date value with the server (2) current date. MUST NOT update the **CreatedOn** value and MUST ignore the value if changed by the protocol client.
- The server (2) MUST return the updated copy of the **Annotation** object, including the updated **LastModifiedOn** value.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
InvalidAnnotation	The updated annotation did not validate to the conforming schema.
InvalidTextLength	A string attribute is null, empty or exceeds its specified maximum length.
InvalidCharacters	The updated **annotation** properties did not validate to the conforming schema.
InvalidComment	The updated **annotation** comments did not validate to the conforming schema.
AnnotationNotEnabled	Annotations are not enabled in the server (2).
AnnotationDeleteNotEnabled	If Annotation Delete is not enabled in the server (2), but this request, which would delete comments, is received, the comments will not be changed on the server (2) and the **AnnotationDeleteNotEnabled** error code will be returned.

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.70.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateAnnotationSoapIn	The request WSDL message for the **UpdateAnnotation** **WSDL operation**.
UpdateAnnotationSoapOut	The response WSDL message for the **UpdateAnnotation** WSDL operation.

3.1.4.70.1.1 UpdateAnnotationSoapIn

The request **WSDL message** for the **UpdateAnnotation** **WSDL operation**.

The **SOAP action** value is:

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```
http://www.microsoft.com/performancepoint/scorecards/UpdateAnnotation
```

The **SOAP body** contains the **UpdateAnnotation** element.

3.1.4.70.1.2 UpdateAnnotationSoapOut

The response **WSDL message** for the **UpdateAnnotation WSDL operation**.

The **SOAP body** contains the **UpdateAnnotationResponse** element.

3.1.4.70.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateAnnotation	The input data for the **UpdateAnnotation WSDL operation**.
UpdateAnnotationResponse	The result data for the **UpdateAnnotation** WSDL operation.

3.1.4.70.2.1 UpdateAnnotation

The **UpdateAnnotation** element specifies the input data for the **UpdateAnnotation WSDL operation**.

```
<xs:element name="UpdateAnnotation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="annotation" type="tns:Annotation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

annotation: The updated **Annotation** complex type (section 2.2.4.18). This element MUST NOT be null and MUST conform to the schema of the **Annotation**. It MUST contain the original **AnnotationId** and **LastModifiedOn** values.

3.1.4.70.2.2 UpdateAnnotationResponse

The **UpdateAnnotationResponse** element specifies the result data for the **UpdateAnnotation WSDL operation**.

```
<xs:element name="UpdateAnnotationResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateAnnotationResult"
type="tns:Annotation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateAnnotationResult: The updated **Annotation** complex type object (section 2.2.4.18). This element MUST be a copy of the updated **Annotation** with the new **LastModifiedOn** value, as stored in the **server (2)**.

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3.1.4.70.3 Complex Types

None.

3.1.4.70.4 Simple Types

None.

3.1.4.70.5 Attributes

None.

3.1.4.70.6 Groups

None.

3.1.4.70.7 Attribute Groups

None.

3.1.4.71 UpdateDashboard

The **UpdateDashboard** operation updates an existing **Dashboard** complex type (section 2.2.4.79).

The following is the **WSDL** port type specification of the **UpdateDashboard WSDL operation**.

```
<wsdl:operation name="UpdateDashboard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateDashboardSoapIn"/>
  <wsdl:output message="tns:UpdateDashboardSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateDashboardSoapIn** request message (section 3.1.4.71.1.1), and the **server (2)** responds with an **UpdateDashboardSoapOut** response message (section 3.1.4.71.1.2) as follows:

- The protocol client MUST send a valid **Dashboard** object that specifies the new state of the **dashboard** that is being updated.
- The server (2) MUST validate the **Dashboard** following the schema of the **Dashboard**.
- The server (2) MUST verify that the **Dashboard** exists by using the **Location** attribute as specified in the base class **FirstClassElement** complex type (section 2.2.4.99).
- The server (2) MUST update the stored copy of the **Dashboard**.
  - **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
  - **LastModified** SHOULD be updated by the server (2) with the date and time of when the dashboard was updated on the server (2) storage. The new value of **LastModified** MUST be greater than or equal to the **LastModified** that was initially submitted to the server (2).
  - **Version** SHOULD be updated by the server (2) with the **current version** of the dashboard object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
  - The other properties of the dashboard SHOULD be equal to the **Dashboard** object submitted to the server (2).

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- The server (2) MUST return a copy of the updated **Dashboard** object.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedNameCollision	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.71.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateDashboardSoapIn	The request WSDL message for the **UpdateDashboard** **WSDL operation**.
UpdateDashboardSoapOut	The response WSDL message for the **UpdateDashboard** WSDL operation.

3.1.4.71.1.1 UpdateDashboardSoapIn

The request **WSDL message** for the **UpdateDashboard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateDashboard
```

The **SOAP body** contains the **UpdateDashboard** element.

3.1.4.71.1.2 UpdateDashboardSoapOut

The response **WSDL message** for the **UpdateDashboard** **WSDL operation**.

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The **SOAP body** contains the **UpdateDashboardResponse** element.

3.1.4.71.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateDashboard	The input data for the **UpdateDashboard** **WSDL operation**.
UpdateDashboardResponse	The result data for the **UpdateDashboard** WSDL operation.

3.1.4.71.2.1 UpdateDashboard

The **UpdateDashboard** element specifies the input data for the **UpdateDashboard** **WSDL operation**.

```
<xs:element name="UpdateDashboard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dashboard" type="tns:Dashboard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dashboard: The updated **dashboard**. This element MUST NOT be null and MUST conform to the schema of the **Dashboard** complex type (section 2.2.4.79).

3.1.4.71.2.2 UpdateDashboardResponse

The **UpdateDashboardResponse** element specifies the result data for the **UpdateDashboard** **WSDL operation**.

```
<xs:element name="UpdateDashboardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateDashboardResult"
type="tns:Dashboard"/>
    </xs:sequence>

  </xs:complexType>
</xs:element>
```

UpdateDashboardResult: The updated **Dashboard** complex type object (section 2.2.4.79). This element MUST be a copy of the updated **dashboard**, as stored in the **server (2)**.

3.1.4.71.3 Complex Types

None.

3.1.4.71.4 Simple Types

None.

3.1.4.71.5 Attributes

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None.

3.1.4.71.6 Groups

None.

3.1.4.71.7 Attribute Groups

None.

3.1.4.72 UpdateDataSource

The **UpdateDataSource** operation updates an existing **DataSource** complex type (section 2.2.4.85).

The following is the **WSDL** port type specification of the **UpdateDataSource WSDL operation**.

```
<wsdl:operation name="UpdateDataSource" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateDataSourceSoapIn"/>
  <wsdl:output message="tns:UpdateDataSourceSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateDataSourceSoapIn** request message (section 3.1.4.72.1.1), and the **server (2)** responds with an **UpdateDataSourceSoapOut** response message (section 3.1.4.72.1.2) as follows:

- The protocol client MUST send a valid **DataSource** object that specifies the new state of the **data source (1)** that is being updated.
- The server (2) MUST validate the **DataSource** following the schema of the **DataSource**.
- The server (2) MUST verify that the **DataSource** exists by using the **Location** attribute as specified in the base class **FirstClassElement** complex type (section 2.2.4.99).
- The server (2) MUST update the stored copy of the **DataSource**. MUST NOT update the **SourceName** value and MUST ignore the value if changed by the protocol client.
  - **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
  - **LastModified** SHOULD be updated by the server (2) with the date and time of when the data source (1) was updated on the server (2) storage.
  - **Version** SHOULD be updated by the server (2) with the **current version** of the **DataSource** object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
- The other properties of the data source (1) SHOULD be equal to the data source (1) submitted to the server (2).
- The server (2) MUST return a copy of the updated **DataSource** object.

Exceptions:

Error code	Description
InvalidPermission	See Common List of Error Codes (section 2.2.2.1.3).
InvalidDataSource	The updated data source (1) did not validate to the conforming

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Error code	Description
	schema.
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedNameCollision	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.72.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateDataSourceSoapIn	The request WSDL message for the **UpdateDataSource** **WSDL operation**.
UpdateDataSourceSoapOut	The response WSDL message for the **UpdateDataSource** WSDL operation.

3.1.4.72.1.1 UpdateDataSourceSoapIn

The request **WSDL message** for the **UpdateDataSource** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateDataSource
```

The **SOAP body** contains the **UpdateDataSource** element.

3.1.4.72.1.2 UpdateDataSourceSoapOut

The response **WSDL message** for the **UpdateDataSource** **WSDL operation**.

The **SOAP body** contains the **UpdateDataSourceResponse** element.

3.1.4.72.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

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Element	Description
UpdateDataSource	The input data for the **UpdateDataSource** **WSDL operation**.
UpdateDataSourceResponse	The result data for the **UpdateDataSource** WSDL operation.

3.1.4.72.2.1 UpdateDataSource

The **UpdateDataSource** element specifies the input data for the **UpdateDataSource** **WSDL operation**.

```
<xs:element name="UpdateDataSource" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

dataSource: The updated **datasource**. This element MUST NOT be null and MUST conform to the schema of the **DataSource** complex type (section 2.2.4.85).

3.1.4.72.2.2 UpdateDataSourceResponse

The **UpdateDataSourceResponse** element specifies the result data for the **UpdateDataSource** **WSDL operation**.

```
<xs:element name="UpdateDataSourceResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateDataSourceResult"
type="tns:DataSource"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateDataSourceResult: The updated **DataSource** complex type (section 2.2.4.85). This element MUST be a copy of the updated **datasource** as stored in the **server (2)**.

3.1.4.72.3 Complex Types

None.

3.1.4.72.4 Simple Types

None.

3.1.4.72.5 Attributes

None.

3.1.4.72.6 Groups

None.

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3.1.4.72.7 Attribute Groups

None.

3.1.4.73 UpdateFilter

The **UpdateFilter** operation is used to update the existing **filter** as specified by the **Filter** complex type object (section 2.2.4.98) in the **UpdateFilter** input element (section 3.1.4.73.2.1).

The following is the **WSDL** port type specification of the **UpdateFilter** **WSDL operation**.

```
<wsdl:operation name="UpdateFilter" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateFilterSoapIn"/>
  <wsdl:output message="tns:UpdateFilterSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateFilterSoapIn** request message (section 3.1.4.73.1.1), and the **server (2)** responds with an **UpdateFilterSoapOut** response message (section 3.1.4.73.1.2) as follows:

- The protocol client MUST send a valid **Filter** object instance that specifies the new state of the filter.
- The server (2) MUST validate the filter following the schema of the **Filter**.
- The server (2) MUST verify that the filter exists by using the **Location** attribute as specified in the base class **FirstClassElement** complex type (section 2.2.4.99) and that the user has permissions to access and modify it.
- The server (2) MUST update the stored copy of the filter.
  - **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
  - **LastModified** SHOULD be updated by the server (2) with the date and time of when the filter was updated on the server (2) storage. The new value of **LastModified** MUST be greater than or equal to the **LastModified** that was initially submitted to the server (2).
  - **Version** SHOULD be updated by the server (2) with the **current version** of the filter object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
  - The other properties of the filter SHOULD be equal to the **Filter** object submitted to the server (2).
- The server (2) MUST return a new **Filter** object instance that represents the updated filter.

Exceptions:

Error code	Description
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.73.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateFilterSoapIn	The request WSDL message for the **UpdateFilter** **WSDL operation**.
UpdateFilterSoapOut	The response WSDL message for the **UpdateFilter** WSDL operation.

3.1.4.73.1.1 UpdateFilterSoapIn

The request **WSDL message** for the **UpdateFilter** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateFilter
```

The **SOAP body** contains the **UpdateFilter** element.

3.1.4.73.1.2 UpdateFilterSoapOut

The response **WSDL message** for the **UpdateFilter** **WSDL operation**.

The **SOAP body** contains the **UpdateFilterResponse** element.

3.1.4.73.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateFilter	The input data for the **UpdateFilter** **WSDL operation**.
UpdateFilterResponse	The result data for the **UpdateFilter** WSDL operation.

3.1.4.73.2.1 UpdateFilter

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The **UpdateFilter** element specifies the input data for the **UpdateFilter** **WSDL operation**.

```
<xs:element name="UpdateFilter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="filter" type="tns:Filter"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

filter: A **Filter** complex type object (section 2.2.4.98) instance that specifies the new state of the **filter** that is being updated.

3.1.4.73.2.2 UpdateFilterResponse

The **UpdateFilterResponse** element specifies the result data for the **UpdateFilter** **WSDL operation**.

```
<xs:element name="UpdateFilterResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateFilterResult" type="tns:Filter"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateFilterResult: A **Filter** complex type object (section 2.2.4.98) instance that specifies the updated **filter**.

3.1.4.73.3 Complex Types

None.

3.1.4.73.4 Simple Types

None.

3.1.4.73.5 Attributes

None.

3.1.4.73.6 Groups

None.

3.1.4.73.7 Attribute Groups

None.

3.1.4.74 UpdateIndicator

The **UpdateIndicator** operation is used to update the existing **Indicator** as specified by the **Indicator** complex type object (section 2.2.4.125) in the **UpdateIndicator** input element (section 3.1.4.74.2.1).

The following is the **WSDL** port type specification of the **UpdateIndicator** **WSDL operation**.

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```
<wsdl:operation name="UpdateIndicator" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateIndicatorSoapIn"/>
  <wsdl:output message="tns:UpdateIndicatorSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateIndicatorSoapIn** request message (section 3.1.4.74.1.1), and the **server (2)** responds with an **UpdateIndicatorSoapOut** response message (section 3.1.4.74.1.2) as follows:

- The protocol client MUST send a valid **Indicator** object instance that specifies the new state of the **indicator**.
- The server (2) MUST validate the **indicator** following the schema of the **Indicator**.
- The server (2) MUST verify that the **indicator** exists by using the **Location** attribute as specified in the base class **FirstClassElement** complex type (section 2.2.4.99) and that the user has permissions to access and modify it.
- The server (2) MUST update the stored copy of the **indicator**.
  - **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
  - **LastModified** SHOULD be updated by the server (2) with the date and time of when the **indicator** was updated on the server (2) storage. The new value of **LastModified** MUST be greater than or equal to the **LastModified** that was initially submitted to the server (2). **Version** SHOULD be updated by the server (2) with the **current version** of the **indicator** object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
  - **CreatedBy** SHOULD be updated by the server (2).
  - **CreatedDate** SHOULD be updated by the server (2).
  - The other properties of the **indicator** SHOULD be equal to the **Indicator** object submitted to the server (2).
- The server (2) MUST return a new **Indicator** object instance that represents the updated **indicator**.

Exceptions:

Error code	Description
InvalidBuiltinIndicatorOperation	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).

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InvalidIndicator	See Common List of Error Codes (section 2.2.2.1.3).
InvalidIndicatorBand	See Common List of Error Codes (section 2.2.2.1.3).
InvalidSetting	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).
Unknown	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.74.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateIndicatorSoapIn	The request WSDL message for the **UpdateIndicator** **WSDL operation**.
UpdateIndicatorSoapOut	The response WSDL message for the **UpdateIndicator** WSDL operation.

3.1.4.74.1.1 UpdateIndicatorSoapIn

The request **WSDL message** for the **UpdateIndicator** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateIndicator
```

The **SOAP body** contains the **UpdateIndicator** element.

3.1.4.74.1.2 UpdateIndicatorSoapOut

The response **WSDL message** for the **UpdateIndicator** **WSDL operation**.

The **SOAP body** contains the **UpdateIndicatorResponse** element.

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3.1.4.74.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateIndicator	The input data for the **UpdateIndicator** **WSDL operation**.
UpdateIndicatorResponse	The result data for the **UpdateIndicator** WSDL operation.

3.1.4.74.2.1 UpdateIndicator

The **UpdateIndicator** element specifies the input data for the **UpdateIndicator** **WSDL operation**.

```
<xs:element name="UpdateIndicator" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="indicator" type="tns:Indicator"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

indicator: An **Indicator** complex type object (section 2.2.4.125) instance that specifies the new state of the indicator that is being updated.

3.1.4.74.2.2 UpdateIndicatorResponse

The **UpdateIndicatorResponse** element specifies the result data for the **UpdateIndicator** **WSDL operation**.

```
<xs:element name="UpdateIndicatorResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateIndicatorResult"
type="tns:Indicator"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateIndicatorResult: An **Indicator** complex type object (section 2.2.4.125) instance that specifies the updated indicator.

3.1.4.74.3 Complex Types

None.

3.1.4.74.4 Simple Types

None.

3.1.4.74.5 Attributes

None.

3.1.4.74.6 Groups

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None.

3.1.4.74.7 Attribute Groups

None.

3.1.4.75 UpdateKpi

The **UpdateKpi** operation is used to update the existing **KPI** as specified by the **Kpi** complex type object (section 2.2.4.128) in the **UpdateKpi** input element (section 3.1.4.75.2.1).

The following is the **WSDL** port type specification of the **UpdateKpi** **WSDL operation**.

```
<wsdl:operation name="UpdateKpi" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateKpiSoapIn"/>
  <wsdl:output message="tns:UpdateKpiSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateKpiSoapIn** request message (section 3.1.4.75.1.1), and the **server (2)** responds with an **UpdateKpiSoapOut** response message (section 3.1.4.75.1.2) as follows:

- The protocol client MUST send a valid **Kpi** object instance that specifies the new state of the KPI.
- The server (2) MUST validate the KPI following the schema of the **Kpi**.
- The server (2) MUST verify that the KPI exists by using the **Location** attribute as specified in the base class **FirstClassElement** complex type (section 2.2.4.99) and that the user has permissions to access and modify it.
- The server (2) MUST update the stored copy of the KPI.
  - **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
  - **LastModified** SHOULD be updated by the server (2) with the date and time of when the KPI was updated on the server (2) storage. The new value of **LastModified** MUST be greater than or equal to the **LastModified** that was initially submitted to the server (2).
  - **Version** SHOULD be updated by the server (2) with the **current version** of the KPI object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
  - The other properties of the KPI SHOULD be equal to the **Kpi** object submitted to the server (2).
- The server (2) MUST return a new **Kpi** object instance that represents the updated KPI.

Exceptions:

Error code	Description
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
InvalidKpi	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.75.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateKpiSoapIn	The request WSDL message for the **UpdateKpi** **WSDL operation**.
UpdateKpiSoapOut	The response WSDL message for the **UpdateKpi** WSDL operation.

3.1.4.75.1.1 UpdateKpiSoapIn

The request **WSDL message** for the **UpdateKpi** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateKpi
```

The **SOAP body** contains the **UpdateKpi** element.

3.1.4.75.1.2 UpdateKpiSoapOut

The response **WSDL message** for the **UpdateKpi** **WSDL operation**.

The **SOAP body** contains the **UpdateKpiResponse** element.

3.1.4.75.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateKpi	The input data for the **UpdateKpi** **WSDL operation**.

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Element	Description
UpdateKpiResponse	The result data for the **UpdateKpi** WSDL operation.

3.1.4.75.2.1 UpdateKpi

The **UpdateKpi** element specifies the input data for the **UpdateKpi** **WSDL operation**.

```
<xs:element name="UpdateKpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="kpi" type="tns:Kpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

kpi: A **Kpi** complex type object (section 2.2.4.128) instance that specifies the new state of the **KPI** that is being updated.

3.1.4.75.2.2 UpdateKpiResponse

The **UpdateKpiResponse** element specifies the result data for the **UpdateKpi** **WSDL operation**.

```
<xs:element name="UpdateKpiResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateKpiResult" type="tns:Kpi"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateKpiResult: A **Kpi** complex type object (section 2.2.4.128) instance that specifies the updated **KPI**.

3.1.4.75.3 Complex Types

None.

3.1.4.75.4 Simple Types

None.

3.1.4.75.5 Attributes

None.

3.1.4.75.6 Groups

None.

3.1.4.75.7 Attribute Groups

None.

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3.1.4.76 UpdateReportView

The **UpdateReportView** operation is used to update the existing **report view** as specified by the **ReportView** complex type object (section 2.2.4.160) in the **UpdateReportView** input element (section 3.1.4.76.2.1).

The following is the **WSDL** port type specification of the **UpdateReportView WSDL operation**.

```
<wsdl:operation name="UpdateReportView" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateReportViewSoapIn"/>
  <wsdl:output message="tns:UpdateReportViewSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateReportViewSoapIn** request message (section 3.1.4.76.1.1), and the **server (2)** responds with an **UpdateReportViewSoapOut** response message (section 3.1.4.76.1.2) as follows:

- The protocol client MUST send a valid **ReportView** object instance that specifies the new state of the report view.
- The server (2) MUST validate the report view following the schema of the **ReportView**.
- The server (2) MUST verify that the report view exists by using the **Location** attribute as specified in the base class **FirstClassElement** complex type (section 2.2.4.99) and that the user has permissions to access and modify it.
- The server (2) MUST update the stored copy of the report view.
    - **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
    - **LastModified** SHOULD be updated by the server (2) with the date and time of when the report view was updated on the server (2) storage. The new value of **LastModified** MUST be greater than or equal to the **LastModified** that was initially submitted to the server (2).
    - **Version** SHOULD be updated by the server (2) with the **current version** of the report view object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
    - The other properties of the report view SHOULD be equal to the **Indicator** complex type object (section 2.2.4.125) submitted to the server (2).

The server (2) MUST return a new **ReportView** object instance that represents the updated report view.

Exceptions:

Error code	Description
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).

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Error code	Description
InvalidReportView	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.76.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateReportViewSoapIn	The request WSDL message for the **UpdateReportView** **WSDL operation**.
UpdateReportViewSoapOut	The response WSDL message for the **UpdateReportView** WSDL operation.

3.1.4.76.1.1 UpdateReportViewSoapIn

The request **WSDL message** for the **UpdateReportView** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateReportView
```

The **SOAP body** contains the **UpdateReportView** element.

3.1.4.76.1.2 UpdateReportViewSoapOut

The response **WSDL message** for the **UpdateReportView** **WSDL operation**.

The **SOAP body** contains the **UpdateReportViewResponse** element.

3.1.4.76.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateReportView	The input data for the **UpdateReportView** **WSDL operation**.
UpdateReportViewResponse	The result data for the **UpdateReportView** WSDL operation.

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3.1.4.76.2.1 UpdateReportView

The **UpdateReportView** element specifies the input data for the **UpdateReportView** **WSDL operation**.

```
<xs:element name="UpdateReportView" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="reportView" type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

reportView: A **ReportView** complex type object (section 2.2.4.160) instance that specifies the new state of the **report view** that is being updated.

3.1.4.76.2.2 UpdateReportViewResponse

The **UpdateReportViewResponse** element specifies the result data for the **UpdateReportView** **WSDL operation**.

```
<xs:element name="UpdateReportViewResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateReportViewResult"
type="tns:ReportView"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateReportViewResult: A **ReportView** complex type object (section 2.2.4.160) instance that specifies the updated **report view**.

3.1.4.76.3 Complex Types

None.

3.1.4.76.4 Simple Types

None.

3.1.4.76.5 Attributes

None.

3.1.4.76.6 Groups

None.

3.1.4.76.7 Attribute Groups

None.

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3.1.4.77 UpdateScorecard

The **UpdateScorecard** operation is used to update the existing **scorecard** as specified by the **Scorecard** complex type object (section 2.2.4.162) in the **UpdateScorecard** input element (section 3.1.4.77.2.1).

The following is the **WSDL** port type specification of the **UpdateScorecard WSDL operation**.

```
<wsdl:operation name="UpdateScorecard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:UpdateScorecardSoapIn"/>
  <wsdl:output message="tns:UpdateScorecardSoapOut"/>
</wsdl:operation>
```

The protocol client sends an **UpdateScorecardSoapIn** request message (section 3.1.4.77.1.1), and the **server (2)** responds with an **UpdateScorecardSoapOut** response message (section 3.1.4.77.1.2) as follows:

- The scorecard to be updated MUST be a valid **Scorecard**.
- The **Location** of the scorecard (see **FirstClassElement** section 2.2.4.99) MUST exist.
- The **current user** MUST have read and write permissions to the **Location** (**FirstClassElement**) of the scorecard.
- The **Location** of the scorecard MUST support storing objects of type **Scorecard**.
- The stored copy on the server (2) MUST be updated with the scorecard provided by the protocol client in the **UpdateScorecardSoapIn** request message.

Exceptions:

Error code	Description
FCOUpdateFailed	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListAccess	See Common List of Error Codes (section 2.2.2.1.3).
InvalidItemType	See Common List of Error Codes (section 2.2.2.1.3).
FCOUpdateFailedListType	See Common List of Error Codes (section 2.2.2.1.3).
InvalidObject	See Common List of Error Codes (section 2.2.2.1.3).
InvalidCategoryName	See Common List of Error Codes (section 2.2.2.1.3).
InvalidFirstClassElementField	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElement	See Common List of Error Codes (section 2.2.2.1.3).
InvalidElementField	See Common List of Error Codes (section 2.2.2.1.3).

In case of any other failure, the error code MUST be one of the values specified in section 2.2.2.1.2. A detailed specification of how exceptions are reported by the server (2) is in section 2.2.2.1.

3.1.4.77.1 Messages

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The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
UpdateScorecardSoapIn	The request WSDL message for the **UpdateScorecard** **WSDL operation**.
UpdateScorecardSoapOut	The response WSDL message for the **UpdateScorecard** WSDL operation.

3.1.4.77.1.1 UpdateScorecardSoapIn

The request **WSDL message** for the **UpdateScorecard** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/UpdateScorecard
```

The **SOAP body** contains the **UpdateScorecard** element.

3.1.4.77.1.2 UpdateScorecardSoapOut

The response **WSDL message** for the **UpdateScorecard** **WSDL operation**.

The **SOAP body** contains the **UpdateScorecardResponse** element.

3.1.4.77.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
UpdateScorecard	The input data for the **UpdateScorecard** **WSDL operation**.
UpdateScorecardResponse	The result data for the **UpdateScorecard** WSDL operation.

3.1.4.77.2.1 UpdateScorecard

The **UpdateScorecard** element specifies the input data for the **UpdateScorecard** **WSDL operation**.

```
<xs:element name="UpdateScorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="scorecard" type="tns:Scorecard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

scorecard: The **scorecard** to be updated, which MUST be a valid **Scorecard** complex type (section 2.2.4.162). The **UpdateScorecard** operation (section 3.1.4.77) is used to update the existing scorecard as specified by **Scorecard**.

3.1.4.77.2.2 UpdateScorecardResponse

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The **UpdateScorecardResponse** element specifies the result data for the **UpdateScorecard** **WSDL operation**.

```
<xs:element name="UpdateScorecardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="UpdateScorecardResult"
type="tns:Scorecard"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

UpdateScorecardResult: The original **scorecard** object submitted to the **server (2)**, modified as follows:

- **ModifiedBy** SHOULD be updated by the server (2) with the **login name** of the **current user**.
- **LastModified** SHOULD be updated by the server (2) with the date and time of when the scorecard was last updated on the server (2) storage. The new value of **LastModified** MUST be greater than or equal to the **LastModified** that was initially submitted to the server (2).
- **Version** SHOULD be updated by the server (2) with the **current version** of the scorecard object. If **Version** is updated by the server (2), it MUST NOT be null and MUST be a valid **ElementVersion** complex type object (section 2.2.4.92).
- The other properties of the scorecard SHOULD be equal to the original scorecard submitted to the server (2).

3.1.4.77.3 Complex Types

None.

3.1.4.77.4 Simple Types

None.

3.1.4.77.5 Attributes

None.

3.1.4.77.6 Groups

None.

3.1.4.77.7 Attribute Groups

None.

3.1.4.78 ValidateKpi

The **ValidateKpi** operation checks whether a **KPI** stored on the **server (2)** is valid.

The following is the **WSDL** port type specification of the **ValidateKpi** **WSDL operation**.

```
<wsdl:operation name="ValidateKpi" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:ValidateKpiSoapIn"/>
  <wsdl:output message="tns:ValidateKpiSoapOut"/>
```


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```
</wsdl:operation>
```

The protocol client sends a **ValidateKpiSoapIn** request message (section 3.1.4.78.1.1), and the server (2) responds with a **ValidateKpiSoapOut** response message (section 3.1.4.78.1.2), as follows:

- If the KPI contains any **Actuals** (see section 2.2.4.128), each MUST be a valid **KpiMeasure** complex type (section 2.2.4.129) as follows:
  - If the **DataSourceLocation** field of **KpiMeasure** is not empty, it MUST refer to an existing **data source (1)** element (see section 2.2.4.85), and the connection to the data source MUST be successful.
  - If the data source at **DataSourceLocation** is of type ADOMD.NET (see section 2.2.4.85), each **DefaultDimensionSetting** (section 2.2.4.87) MUST be valid as follows:
    - If the **DefaultDimensionSetting** contains any **Members** elements, a **Member** complex type (section 2.2.4.134) for each MUST exist in the data source.
- If the KPI contains any **Targets** elements, each MUST be a valid **Target** complex type (section 2.2.4.170) as follows:
  - If the property **RelatedActualId** is not empty, it MUST refer to an existing **Actual**, which MUST be valid according to the **Actuals** (section 2.2.4.128).
  - The **Target** itself MUST be a valid **KpiMeasure** complex type (section 2.2.4.129).
  - If the property **IndicatorLocation** is not empty, it MUST refer to an existing **Indicator**.
  - If the property **StatedScore** is not empty, it MUST be a valid **KpiMeasure** complex type (section 2.2.4.129).

3.1.4.78.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
ValidateKpiSoapIn	The request WSDL message for the **ValidateKpi** **WSDL operation**.
ValidateKpiSoapOut	The response WSDL message for the **ValidateKpi** WSDL operation.

3.1.4.78.1.1 ValidateKpiSoapIn

The request **WSDL message** for the **ValidateKpi** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/ValidateKpi
```

The **SOAP body** contains the **ValidateKpi** element.

3.1.4.78.1.2 ValidateKpiSoapOut

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The response **WSDL message** for the **ValidateKpi** **WSDL operation**.

The **SOAP body** contains the **ValidateKpiResponse** element.

3.1.4.78.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ValidateKpi	The input data for the **ValidateKpi** **WSDL operation**.
ValidateKpiResponse	The result data for the **ValidateKpi** WSDL operation.

3.1.4.78.2.1 ValidateKpi

The **ValidateKpi** element specifies the input data for the **ValidateKpi** **WSDL operation**.

```
<xs:element name="ValidateKpi" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: Location of the **KPI** to be validated (see **RepositoryLocation** section 2.2.4.161).

3.1.4.78.2.2 ValidateKpiResponse

The **ValidateKpiResponse** element specifies the result data for the **ValidateKpi** **WSDL operation**.

```
<xs:element name="ValidateKpiResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="ValidateKpiResult"
type="tns:ArrayOfString"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

ValidateKpiResult: An array of strings. If the **KPI** is valid, this array MUST be empty. Otherwise, this array SHOULD contain one localized error message per validation failure.

3.1.4.78.3 Complex Types

None.

3.1.4.78.4 Simple Types

None.

3.1.4.78.5 Attributes

None.

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3.1.4.78.6 Groups

None.

3.1.4.78.7 Attribute Groups

None.

3.1.4.79 ValidateScorecard

The **ValidateScorecard** operation checks if a **scorecard** stored on the **server (2)** is valid.

The following is the **WSDL** port type specification of the **ValidateScorecard** **WSDL operation**.

```
<wsdl:operation name="ValidateScorecard" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:ValidateScorecardSoapIn"/>
  <wsdl:output message="tns:ValidateScorecardSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **ValidateScorecardSoapIn** request message (section 3.1.4.79.1.1), and the server (2) responds with a **ValidateScorecardSoapOut** response message (section 3.1.4.79.1.2) as follows:

- If the scorecard contains one or more **KPIs**, each KPI MUST be valid according to the specification in the **ValidateKPI** operation (section 3.1.4.78).
- If the scorecard contains any **ConfiguredView** complex types (section 2.2.4.77), each MUST be valid as follows:
  - If the **DataSourceLocation** field is not empty, it MUST refer to an existing data source element (section 2.2.4.85) and the connection to the data source MUST be successful.
  - The column and row headers defined in the **GridViewDefinition** (section 2.2.4.122) and **GridHeaderItem** (section 2.2.4.116) complex types MUST be valid according to the following:
    - Each column or row header that is of complex type **Member** (section 2.2.4.134) MUST refer to a valid member in the data source.
    - Each column or row header that is of complex type **NamedSet** (section 2.2.4.147) MUST be a well-formed **named set MDX**.

3.1.4.79.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
ValidateScorecardSoapIn	The request WSDL message for the **ValidateScorecard** **WSDL operation**.
ValidateScorecardSoapOut	The response WSDL message for the **ValidateScorecard** WSDL operation.

3.1.4.79.1.1 ValidateScorecardSoapIn

The request **WSDL message** for the **ValidateScorecard** **WSDL operation**.

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The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/ValidateScorecard
```

The **SOAP body** contains the **ValidateScorecard** element.

3.1.4.79.1.2 ValidateScorecardSoapOut

The response **WSDL message** for the **ValidateScorecard** **WSDL operation**.

The **SOAP body** contains the **ValidateScorecardResponse** element.

3.1.4.79.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ValidateScorecard	The input data for the **ValidateScorecard** **WSDL operation**.
ValidateScorecardResponse	The result data for the **ValidateScorecard** WSDL operation.

3.1.4.79.2.1 ValidateScorecard

The **ValidateScorecard** element specifies the input data for the **ValidateScorecard** **WSDL operation**.

```
<xs:element name="ValidateScorecard" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="location" type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

location: Location of the **scorecard** to be validated (see **RepositoryLocation** section 2.2.4.161).

3.1.4.79.2.2 ValidateScorecardResponse

The **ValidateScorecardResponse** element specifies the result data for the **ValidateScorecard** **WSDL operation**.

```
<xs:element name="ValidateScorecardResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="ValidateScorecardResult"
type="tns:ArrayOfString"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

ValidateScorecardResult: An array of strings. If the **scorecard** is valid, this array MUST be empty. Otherwise, this array SHOULD contain one localized error message per validation failure.

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3.1.4.79.3 Complex Types

None.

3.1.4.79.4 Simple Types

None.

3.1.4.79.5 Attributes

None.

3.1.4.79.6 Groups

None.

3.1.4.79.7 Attribute Groups

None.

3.1.4.80 ValidateSiteCollection

The **ValidateSiteCollection** operation is used to check if the **context site** has the **server (2)** feature installed.

The following is the **WSDL** port type specification of the **ValidateSiteCollection WSDL operation**.

```
<wsdl:operation name="ValidateSiteCollection" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="tns:ValidateSiteCollectionSoapIn"/>
  <wsdl:output message="tns:ValidateSiteCollectionSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **ValidateSiteCollectionSoapIn** request message (section 3.1.4.80.1.1), and the server (2) responds with a **ValidateSiteCollectionSoapOut** response message (section 3.1.4.80.1.2) as follows:

- If the user-defined context site is the top-level **site (2)** of a **site collection** that has the server (2) feature installed, the **ValidateSiteCollectionResult** attribute MUST be "SiteCollection".
- If the user-defined context site is a **subsite** of a site collection that has the server (2) feature installed, **ValidateSiteCollectionResult** MUST be "Site".
- If the user-defined context site is null, **ValidateSiteCollectionResult** MUST be "NonexistentSiteCollection".
- If the user-defined context site is not a valid site (2) or a site collection and the **siteCollectionUrl** attribute derived from the user-defined context site is not empty, **ValidateSiteCollectionResult** MUST be "Nonexistentsite".
- If the user-defined context site is not a valid site (2) or a site collection and **siteCollectionUrl** derived from the user-defined context site is empty, **ValidateSiteCollectionResult** MUST be "NonexistentSiteCollection".
- If the site collection of the user-defined context site does not have the server (2) feature installed, **ValidateSiteCollectionResult** MUST be "PPSNotActivatedOnSiteCollection".
- **ValidateSiteCollectionResult** MUST NOT have any other values from the **URLValidationResult** enumeration (section 3.1.4.80.4.1) other than those enumerated in the preceding items.

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3.1.4.80.1 Messages

The following table summarizes the set of **WSDL message** definitions that are specific to this operation.

Message	Description
ValidateSiteCollectionSoapIn	The request WSDL message for the **ValidateSiteCollection** **WSDL operation**.
ValidateSiteCollectionSoapOut	The response WSDL message for the **ValidateSiteCollection** WSDL operation.

3.1.4.80.1.1 ValidateSiteCollectionSoapIn

The request **WSDL message** for the **ValidateSiteCollection** **WSDL operation**.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/ValidateSiteCollection
```

The **SOAP body** contains the **ValidateSiteCollection** element.

3.1.4.80.1.2 ValidateSiteCollectionSoapOut

The response **WSDL message** for the **ValidateSiteCollection** **WSDL operation**.

The **SOAP body** contains the **ValidateSiteCollectionResponse** element.

3.1.4.80.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ValidateSiteCollection	The input data for the **ValidateSiteCollection** **WSDL operation**.
ValidateSiteCollectionResponse	The result data for the **ValidateSiteCollection** WSDL operation.

3.1.4.80.2.1 ValidateSiteCollection

The **ValidateSiteCollection** element specifies the input data for the **ValidateSiteCollection** **WSDL operation**.

```
<xs:element name="ValidateSiteCollection" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType/>
</xs:element>
```

3.1.4.80.2.2 ValidateSiteCollectionResponse

The **ValidateSiteCollectionResponse** element specifies the result data for the **ValidateSiteCollection** **WSDL operation**.

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```
<xs:element name="ValidateSiteCollectionResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="ValidateSiteCollectionResult"
type="tns:URLValidationResult"/>
      <xs:element minOccurs="0" maxOccurs="1" name="siteCollectionUrl" type="xs:string"/>
      <xs:element minOccurs="0" maxOccurs="1" name="siteUrl" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

ValidateSiteCollectionResult: A value of type **URLValidationResult** indicating the result of the validation process. See the definition of the **URLValidationResult** simple type (section 3.1.4.80.4.1) for more details.

siteCollectionUrl: The **site collection URL** of the **context site**.

siteUrl: The URL of the context site.

3.1.4.80.3 Complex Types

None.

3.1.4.80.4 Simple Types

The following table summarizes the **XML schema** simple type definitions that are specific to this operation.

Simple type	Description
URLValidationResult	Specifies the possible results of **URL** validation.

3.1.4.80.4.1 URLValidationResult

Namespace: http://www.microsoft.com/performancepoint/scorecards

The **URLValidationResult** is an enumeration used to specify the possible results of **URL** validation.

```
<xs:simpleType name="URLValidationResult" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="SiteCollectionOrSite"/>
    <xs:enumeration value="SiteCollection"/>
    <xs:enumeration value="Site"/>
    <xs:enumeration value="List"/>
    <xs:enumeration value="DocumentLibrary"/>
    <xs:enumeration value="InvalidURL"/>
    <xs:enumeration value="AlreadyExists"/>
    <xs:enumeration value="NonexistentSiteCollection"/>
    <xs:enumeration value="NonexistentSite"/>
    <xs:enumeration value="PPSNotActivatedOnSiteCollection"/>
    <xs:enumeration value="URLZoneNotAllowed"/>
    <xs:enumeration value="NoAccess"/>
    <xs:enumeration value="InvalidSiteVersion"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **URLValidationResult** simple type.

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Value	Meaning
SiteCollectionOrSite	The **context site** is a **subsite** of a **site collection** or the top-level **site (2)** of a site collection that has the **server (2)** feature installed.
SiteCollection	The context site is the top-level site (2) of a site collection and the site collection has the server (2) feature installed.
Site	The context site is a subsite of a site collection and the site collection has the protocol **feature** installed.
List	The context site is a **list (1)** of a site collection.
DocumentLibrary	The context site is a **document library** of a site collection.
InvalidURL	The URL is not valid.
AlreadyExists	The URL already exists.
NonexistentSiteCollection	The context site is not a valid site collection.
NonexistentSite	The context site is not a valid site (2).
PPSNotActivatedOnSiteCollection	The site collection of the context site does not have the server (2) feature activated.
URLZoneNotAllowed	The URL is not in the following **security zones**: Local, Intranet, or Trusted.
NoAccess	The user has insufficient rights to access the context site.
InvalidSiteVersion	The context site version is not compatible with the current server (2) feature.

3.1.4.80.5 Attributes

None.

3.1.4.80.6 Groups

None.

3.1.4.80.7 Attribute Groups

None.

3.1.5 Timer Events

No timer events are required on the **server (2)** beyond those required by the underlying RPC transport.

3.1.6 Other Local Events

None.

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4 Protocol Examples

The following subsections contain examples of this protocol's usage.

4.1 Scorecard Update

In this example, a protocol client creates a new KPI, adds that KPI to an existing scorecard, gets the result data set for that scorecard, and deletes the scorecard.

The example assumes that the following objects are known to the **server (2)** with the following identifiers:

Type	Name	Path	ID
Scorecard	New **Scorecard**.	/PerformancePoint/Lists/Dashboard Content	8_.000
KPI	**InternetSales**.	/PerformancePoint/Lists/Dashboard Content	4_.000
DataSource	New **DataSource**.	/PerformancePoint/Data Sources	1_.000

4.1.1 CreateKpi

To create a new **KPI**, the protocol client calls **CreateKpi** operation (section 3.1.4.6). This call will create a KPI with an **Analysis Services** actual value using the Internet Sales Amount measure. The target value is a fixed data source with a value of one. The KPI will use a built-in indicator and **normalized banding** type.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <CreateKpi xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <listUrl>/PerformancePoint/Lists/Dashboard Content</listUrl>
   <kpi Folder="" CreatedBy="Sample User" CreatedDate="2009-05-21T13:13:06"
ContentType="PpsKpi" LastModified="2009-05-21T13:13:47" ModifiedBy="Sample User"
CheckedOutTo="">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="InternetSales" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="1" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Lists/Dashboard Content" />
    <Actuals>
     <KpiMeasure Guid="6b25b5bc-ffed-4f36-823c-d919b9f4716f" AggregateBy="Default"
DisableScorecardFilters="false" CustomData="" MeasureType="Fixed" ModelCurrent="1"
Pattern="IncreasingIsBetter" CurrentFormula="" IsCustomCurrentFormula="false" OdbcQuery=""
OverrideHoverText="" TimeFilterFormula="" ValueSource="Default">
      <Properties>
```


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```
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Actual" />
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <OwnerKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content" />
      <DataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1_.000"
ItemType="DataSource" ItemGuid="571b7526-4246-4926-b05c-7c1a350ce3e2"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="d5f0d9e4-7473-4845-820a-920dedeb0593" />
      <DefaultDimensionSettings>
       <DefaultDimensionSetting DisplayName="{[Measures].[Measures]}" UniqueName="[Measures]"
IsMeasureDimension="true" DefaultMemberName="" IsVisible="true" ShowAsSlider="false">
        <MeasureGroupNames />
        <Type>Unknown</Type>
        <Hierarchies />
        <Levels>
         <Level DisplayName="MeasureLevel" UniqueName="MeasureLevel"
DimensionUniqueName="[Measures]" IsAllLevel="false" LevelNumber="0" />
        </Levels>
        <Members Caption="Internet Sales Amount" UniqueName="[Measures].[Internet Sales
Amount]" LevelName="[Measures].[MeasuresLevel]" DimensionName="Measures.Measures"
LevelDepth="0" ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Measures]" MemberType="Regular" />
       </DefaultDimensionSetting>
      </DefaultDimensionSettings>
      <OverrideFormatProperties Multiplier="1" FormatType="Default" DecimalPlaces="0"
NegativeSymbol="NegativeSign" UseThousandsSeparator="true" />
     </KpiMeasure>
    </Actuals>
    <Targets>
     <Target Guid="f1a4fa1f-2474-4746-99e6-660e8dafe1e8" AggregateBy="Default"
DisableScorecardFilters="false" CustomData="" MeasureType="Fixed" ModelCurrent="1"
Pattern="IncreasingIsBetter" IsCustomCurrentFormula="false" OverrideHoverText=""
ValueSource="Default" IsRollupScore="false">
      <Properties>
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Target" />
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <OwnerKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content" />
      <DataSourceLocation ItemUrl="/%%fixedvalues%%" />
      <DefaultDimensionSettings />
      <OverrideFormatProperties Multiplier="1" FormatType="Default" DecimalPlaces="0"
NegativeSymbol="NegativeSign" UseThousandsSeparator="true" />
      <IndicatorLocation ItemUrl="/PPSBUILTININDICATOR/0 .000" />
      <Banding Type="Normalized" ActualWorst="0" SpreadMinimum="0" SpreadMaximum="1.2">
       <CustomBoundary>
        <decimal>0.50</decimal>
        <decimal>1</decimal>
       </CustomBoundary>
      </Banding>
      <RelatedActualId>6b25b5bc-ffed-4f36-823c-d919b9f4716f</RelatedActualId>
     </Target>
    </Targets>
   </kpi>
```


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```
  </CreateKpi>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <CreateKpiResponse xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <CreateKpiResult Folder="" CreatedBy="Sample User" CreatedDate="2009-05-21T13:14:28"
ContentType="PpsKpi" LastModified="2009-05-21T13:14:28" ModifiedBy="Sample User"
CheckedOutTo="">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="InternetSales" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="1" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Lists/Dashboard Content/4 .000" ItemType="Kpi"
ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791" SpSiteCollectionGuid="7d7875a5-583b-419c-
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="c2f6f377-
a268-4cf1-a9fc-76d4b2ddabe0" />
    <Actuals>
     <KpiMeasure Guid="6b25b5bc-ffed-4f36-823c-d919b9f4716f" AggregateBy="Default"
DisableScorecardFilters="false" CustomData="" MeasureType="Fixed" ModelCurrent="1"
Pattern="IncreasingIsBetter" CurrentFormula="" IsCustomCurrentFormula="false" OdbcQuery=""
OverrideHoverText="" TimeFilterFormula="" ValueSource="Default">
      <Properties>
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Actual" />
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <OwnerKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/4_.000"
ItemType="Kpi" ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
      <DataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1 .000"
ItemType="DataSource" ItemGuid="571b7526-4246-4926-b05c-7c1a350ce3e2"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="d5f0d9e4-7473-4845-820a-920dedeb0593" />
      <DefaultDimensionSettings>
       <DefaultDimensionSetting DisplayName="{[Measures].[Measures]}" UniqueName="[Measures]"
IsMeasureDimension="true" DefaultMemberName="" IsVisible="true" ShowAsSlider="false">
        <MeasureGroupNames />
        <Type>Unknown</Type>
        <Hierarchies />
        <Levels>
         <Level DisplayName="MeasureLevel" UniqueName="MeasureLevel"
DimensionUniqueName="[Measures]" IsAllLevel="false" LevelNumber="0" />
        </Levels>
```


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```
        <Members Caption="Internet Sales Amount" UniqueName="[Measures].[Internet Sales
Amount]" LevelName="[Measures].[MeasuresLevel]" DimensionName="Measures.Measures"
LevelDepth="0" ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Measures]" MemberType="Regular" />
       </DefaultDimensionSetting>
      </DefaultDimensionSettings>
      <OverrideFormatProperties Multiplier="1" FormatType="Default" DecimalPlaces="0"
NegativeSymbol="NegativeSign" UseThousandsSeparator="true" />
     </KpiMeasure>
    </Actuals>
    <Targets>
     <Target Guid="f1a4fa1f-2474-4746-99e6-660e8dafe1e8" AggregateBy="Default"
DisableScorecardFilters="false" CustomData="" MeasureType="Fixed" ModelCurrent="1"
Pattern="IncreasingIsBetter" IsCustomCurrentFormula="false" OverrideHoverText=""
ValueSource="Default" IsRollupScore="false">
      <Properties>
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Target" />
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <OwnerKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/4_.000"
ItemType="Kpi" ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
      <DataSourceLocation ItemUrl="/%%fixedvalues%%" />
      <DefaultDimensionSettings />
      <OverrideFormatProperties Multiplier="1" FormatType="Default" DecimalPlaces="0"
NegativeSymbol="NegativeSign" UseThousandsSeparator="true" />
      <IndicatorLocation ItemUrl="/PPSBUILTININDICATOR/0 .000" />
      <Banding Type="Normalized" ActualWorst="0" SpreadMinimum="0" SpreadMaximum="1.2">
       <CustomBoundary>
        <decimal>0.50</decimal>
        <decimal>1</decimal>
       </CustomBoundary>
      </Banding>
      <RelatedActualId>6b25b5bc-ffed-4f36-823c-d919b9f4716f</RelatedActualId>
     </Target>
    </Targets>
   </CreateKpiResult>
  </CreateKpiResponse>
 </soap:Body>
</soap:Envelope>
```

4.1.2 GetScorecard

The protocol client then retrieves the scorecard to be updated.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <GetScorecard xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <location ItemUrl="/PerformancePoint/Lists/Dashboard Content/8 .000" />
  </GetScorecard>
 </soap:Body>
```


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```
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <GetScorecardResponse xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <GetScorecardResult Folder="" CreatedBy="REDMOND\sbishel" CreatedDate="2009-05-
21T16:42:00" ContentType="PpsScorecard" LastModified="2009-05-21T17:27:39"
ModifiedBy="REDMOND\sbishel" CheckedOutTo="" TemplateType="General"
RendererClassName="Microsoft.PerformancePoint.Scorecards.ServerRendering.ScorecardCtrl,
Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=94de0004b6e3fcc5">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="New Scorecard" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="2" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Lists/Dashboard Content/8_.000" ItemType="Scorecard"
ItemGuid="cb692449-f20e-4809-9ee3-e012c78f026e" SpSiteCollectionGuid="7d7875a5-583b-419c-
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="c2f6f377-
a268-4cf1-a9fc-76d4b2ddabe0" />
    <ConfiguredViews>
     <ConfiguredView Guid="7675ef55-d456-469e-9381-8c1eddd94c1d" AllowStatusFilter="true"
AllowFilter="true" AllowSort="true" AllowAnnotations="true" EmptyRowsFilterMode="None"
AllowShowDetails="true" ShowInfoToolTips="false" EnableTextwrap="false"
MaintainMemberLevelDepth="true" AllowDynamicRowMemberExpansion="true"
AllowDynamicColumnMemberExpansion="true" AllowRowDrill="true" AllowColumnDrill="true"
AlwaysShowAnnotationCellFlags="false" ExpandToFitWidth="false" HideScorecard="false"
ShowStatusFiltersByDefault="false">
      <Properties>
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Default View" />
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <ToolbarOptions ShowInlineText="true" ShowToolbar="false" ShowPageFilters="true"
ShowRefresh="true" ShowStatusFilter="true" ShowToolTips="true" ShowCollapse="true"
ShowMode="true" ShowPrint="true" ShowExpand="true" ShowCellSelection="false"
AnnotationOnByDefault="true" ShowPageFiltersByDefault="false"
ShowStatusFilterByDefault="false" ShowToolbarItemsLabel="false" ShowDefaultRollup="true"
ShowWorstChildRollup="true" ShowIndicatorCount="true" />
      <DataSourceLocation ItemUrl="/%%fixedvalues%%" />
      <GridViewDefinition EmptyCell="" InvalidCell="Error" ShowGridLines="true"
ShowHiddenHeaders="false" ShowMetricHeaders="true" ShowPlusMinus="true">
       <CornerCellFormatInfo TextWrap="Undefined" VerticalAlignment="Middle"
HorizontalAlignment="Center">
        <BackColor A="0" R="235" G="243" B="255" />
       </CornerCellFormatInfo>
```


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```
       <RootRowHeader Id="0" Guid="ffa9ff3b-ea47-4149-8a9e-d5f06d938f2f"
DefinitionGuid="ffa9ff3b-ea47-4149-8a9e-d5f06d938f2f" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="0" DescendantSpan="1" LeafSpan="1" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
        <Children>
         <GridHeaderItem Id="1" Guid="af0bd13a-2ad5-4470-b81c-14ef2e7cafd3"
DefinitionGuid="af0bd13a-2ad5-4470-b81c-14ef2e7cafd3" DisplayText="InternetSales"
DimensionName="Scorecard__" DimensionValue="/PerformancePoint/Lists/Dashboard Content/4_.000"
HeaderType="Kpi" GroupId="-4" Depth="1" LevelDepth="0" DescendantSpan="0" LeafSpan="1"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/4_.000"
ItemType="Kpi" ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
          <BpmProperties />
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
        </Children>
        <OverrideIndicatorLocation ItemUrl="" />
        <LinkedKpiLocation ItemUrl="" />
        <BpmProperties />
        <TrendIndicatorLocation ItemUrl="" />
       </RootRowHeader>
       <RootColumnHeader Id="0" Guid="ab5c8048-cae2-4054-88bb-917449fda92e"
DefinitionGuid="ab5c8048-cae2-4054-88bb-917449fda92e" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="-1" DescendantSpan="1" LeafSpan="2" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
        <Children>
         <GridHeaderItem Id="1" Guid="c3d60c40-8627-4a07-8e74-2e9bbc6776c5"
DefinitionGuid="c3d60c40-8627-4a07-8e74-2e9bbc6776c5" DisplayText="Actual"
DimensionName="Scorecard_Measures__" DimensionValue="Actual" HeaderType="KpiActual"
GroupId="-2" Depth="1" LevelDepth="-1" DescendantSpan="0" LeafSpan="1" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Actual" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="" />
          <BpmProperties />
          <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
           <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="NotDisplayed" />
           <FilterEmptyRows>false</FilterEmptyRows>
           <Position>NotDisplayed</Position>
```


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```
           <PositionActual>NotDisplayed</PositionActual>
           <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
           <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
            <Position>Center</Position>
           </IndicatorSettings>
          </TargetSettings>
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
         <GridHeaderItem Id="2" Guid="a6d178eb-68d9-430a-a3ba-0b4cbef77511"
DefinitionGuid="a6d178eb-68d9-430a-a3ba-0b4cbef77511" DisplayText="Target"
DimensionName="Scorecard_Measures__" DimensionValue="Target" HeaderType="KpiTarget"
GroupId="-3" Depth="1" LevelDepth="-1" DescendantSpan="0" LeafSpan="1" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Target" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="" />
          <BpmProperties />
          <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
           <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="Right" />
           <FilterEmptyRows>false</FilterEmptyRows>
           <Position>Left</Position>
           <PositionActual>NotDisplayed</PositionActual>
           <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
           <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
            <Position>Center</Position>
           </IndicatorSettings>
          </TargetSettings>
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
        </Children>
        <OverrideIndicatorLocation ItemUrl="" />
        <LinkedKpiLocation ItemUrl="" />
        <BpmProperties />
        <TrendIndicatorLocation ItemUrl="" />
       </RootColumnHeader>
       <DefaultRollupIndicatorId>00000000-0000-0000-0000-
000000000000</DefaultRollupIndicatorId>
       <DefaultRollupIndicatorLocation ItemUrl="" />
       <CellBorderColor A="255" R="208" G="216" B="229" />
     </GridViewDefinition>
     </ConfiguredView>
    </ConfiguredViews>
    <EndPoints>
     <EndPoint Category="Axis" UniqueName="EndPoint_Page" DisplayName="Page"
AcceptsMultipleFilterLinks="true" />
     <EndPoint Category="Axis" UniqueName="EndPoint Row" DisplayName="Row"
AcceptsMultipleFilterLinks="false" />
     <EndPoint Category="Axis" UniqueName="EndPoint_Column" DisplayName="Column"
AcceptsMultipleFilterLinks="false" />
     <EndPoint Category="Axis" UniqueName="EndPoint_TIFormula" DisplayName="TI formula"
AcceptsMultipleFilterLinks="true" />
     <EndPoint Category="Axis" UniqueName="EndPoint_CurrentDate-Time" DisplayName="Current
date-time" AcceptsMultipleFilterLinks="true" />
    </EndPoints>
    <BeginPoints>
     <ParameterDefinition>
      <ParameterUniqueName>2833def6-63f3-43d5-9bfd-ebd371113b27</ParameterUniqueName>
```


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```
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="KpiId" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
              <xs:element name="Name" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
              <xs:element name="Description" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
              <xs:element name="Person x0020 Responsible" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint_Kpi</CustomDefinition>
      <ParameterProviderId>ParameterScorecardKpiProvider</ParameterProviderId>
      <DisplayName>KPI</DisplayName>
      <EmitterType>BothAConditionalVisibilityAndParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
     <ParameterDefinition>
      <ParameterUniqueName>dd5820fe-d454-4a30-8980-1e37a5bc2341</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="CellDisplay" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
```


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```
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint ScorecardCell</CustomDefinition>
      <ParameterProviderId>ParameterScorecardCellProvider</ParameterProviderId>
      <DisplayName>Cell</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
     <ParameterDefinition>
      <ParameterUniqueName>c6441909-fc12-4f5f-a1aa-8c5d6729e7de</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="MemberUniqueName" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint ScorecardRowMember</CustomDefinition>
      <ParameterProviderId>ParameterScorecardRowMemberProvider</ParameterProviderId>
      <DisplayName>Row Member</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
     <ParameterDefinition>
      <ParameterUniqueName>957d3ae6-c5db-4d06-a432-0f5df8d07ce7</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
```


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```
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="MemberUniqueName" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint ScorecardColumnMember</CustomDefinition>
      <ParameterProviderId>ParameterScorecardColumnMemberProvider</ParameterProviderId>
      <DisplayName>Column Member</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
    </BeginPoints>
   </GetScorecardResult>
  </GetScorecardResponse>
 </soap:Body>
</soap:Envelope>
```

4.1.3 UpdateScorecard

The protocol client then calls **UpdateScorecard.** The **GridHeaderItem** section with ID set to 2 has been added to the scorecard returned in the **GetScorecard** example.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <UpdateScorecard xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <scorecard Folder="" CreatedBy="Sample User" CreatedDate="2009-05-21T13:10:54"
ContentType="PpsScorecard" LastModified="2009-05-21T13:12:24" ModifiedBy="Sample User"
CheckedOutTo="" TemplateType="General"
RendererClassName="Microsoft.PerformancePoint.Scorecards.ServerRendering.ScorecardCtrl,
Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=94de0004b6e3fcc5">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="MyScorecard" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="2" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Lists/Dashboard Content/2_.000" ItemType="Scorecard"
ItemGuid="22dd6dc3-247c-43b1-b246-6ab222e9001e" SpSiteCollectionGuid="7d7875a5-583b-419c-
```


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```
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="c2f6f377-
a268-4cf1-a9fc-76d4b2ddabe0" />
    <ConfiguredViews>
     <ConfiguredView Guid="9bb8d042-eff9-415c-baa4-3d0c5507e441" AllowStatusFilter="true"
AllowFilter="true" AllowSort="true" AllowAnnotations="true" EmptyRowsFilterMode="None"
AllowShowDetails="true" ShowInfoToolTips="false" EnableTextwrap="false"
MaintainMemberLevelDepth="true" AllowDynamicRowMemberExpansion="true"
AllowDynamicColumnMemberExpansion="true" AllowRowDrill="true" AllowColumnDrill="true"
AlwaysShowAnnotationCellFlags="false" ExpandToFitWidth="false" HideScorecard="false"
ShowStatusFiltersByDefault="false">
      <Properties>
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Default View" />
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <ToolbarOptions ShowInlineText="true" ShowToolbar="false" ShowPageFilters="true"
ShowRefresh="true" ShowStatusFilter="true" ShowToolTips="true" ShowCollapse="true"
ShowMode="true" ShowPrint="true" ShowExpand="true" ShowCellSelection="false"
AnnotationOnByDefault="true" ShowPageFiltersByDefault="false"
ShowStatusFilterByDefault="false" ShowToolbarItemsLabel="false" ShowDefaultRollup="true"
ShowWorstChildRollup="true" ShowIndicatorCount="true" />
      <DataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1_.000"
ItemType="DataSource" ItemGuid="571b7526-4246-4926-b05c-7c1a350ce3e2"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="d5f0d9e4-7473-4845-820a-920dedeb0593" />
      <GridViewDefinition EmptyCell="" InvalidCell="Error" ShowGridLines="true"
ShowHiddenHeaders="false" ShowMetricHeaders="true" ShowPlusMinus="true">
       <CornerCellFormatInfo TextWrap="Undefined" VerticalAlignment="Middle"
HorizontalAlignment="Center">
        <BackColor A="0" R="235" G="243" B="255" />
       </CornerCellFormatInfo>
       <RootRowHeader Id="0" Guid="fd56bee3-dba4-400b-99e2-f1e14f5956a3"
DefinitionGuid="fd56bee3-dba4-400b-99e2-f1e14f5956a3" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="0" DescendantSpan="1" LeafSpan="2" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
        <Children>
         <GridHeaderItem Id="1" Guid="b70a0ba9-ea56-4ffa-bc41-bd190f06cc1d"
DefinitionGuid="b70a0ba9-ea56-4ffa-bc41-bd190f06cc1d" DisplayText=""
DimensionName="Scorecard  " DimensionValue="/PerformancePoint/Lists/Dashboard Content/1 .000"
HeaderType="Kpi" GroupId="-1" Depth="1" LevelDepth="0" DescendantSpan="0" LeafSpan="1"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/1_.000"
ItemType="Kpi" ItemGuid="87b809c4-bda0-4670-9c5d-3fbcac4102ab"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
          <BpmProperties />
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
```


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```
        <GridHeaderItem Id="2" Guid="db9f17e1-a0a3-41d6-a492-56240189204d"
DefinitionGuid="db9f17e1-a0a3-41d6-a492-56240189204d" DisplayText="InternetSales"
DimensionName="Scorecard__" DimensionValue="/PerformancePoint/Lists/Dashboard Content/4_.000"
HeaderType="Kpi" GroupId="-5" Depth="1" LevelDepth="0" DescendantSpan="0" LeafSpan="1"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/4_.000"
ItemType="Kpi" ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
          <BpmProperties />
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
        </Children>
        <OverrideIndicatorLocation ItemUrl="" />
        <LinkedKpiLocation ItemUrl="" />
        <BpmProperties />
        <TrendIndicatorLocation ItemUrl="" />
       </RootRowHeader>
       <RootColumnHeader Id="0" Guid="09055f3f-77da-4fb0-9482-d434fa95f81c"
DefinitionGuid="09055f3f-77da-4fb0-9482-d434fa95f81c" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="-1" DescendantSpan="1" LeafSpan="2" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
        <Children>
         <GridHeaderItem Id="1" Guid="13c063f8-e3ba-459d-a7f9-526fdc3b29de"
DefinitionGuid="13c063f8-e3ba-459d-a7f9-526fdc3b29de" DisplayText="Actual"
DimensionName="Scorecard Measures  " DimensionValue="Actual" HeaderType="KpiActual"
GroupId="-3" Depth="1" LevelDepth="-1" DescendantSpan="0" LeafSpan="1" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Actual" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="" />
          <BpmProperties />
          <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
           <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="NotDisplayed" />
           <FilterEmptyRows>false</FilterEmptyRows>
           <Position>NotDisplayed</Position>
           <PositionActual>NotDisplayed</PositionActual>
           <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
          <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
           <Position>Center</Position>
          </IndicatorSettings>
         </TargetSettings>
         <TrendIndicatorLocation ItemUrl="" />
        </GridHeaderItem>
```


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```
         <GridHeaderItem Id="2" Guid="f6b2afe4-fe5b-47a1-974b-c7e59ab3f80f"
DefinitionGuid="f6b2afe4-fe5b-47a1-974b-c7e59ab3f80f" DisplayText="Target"
DimensionName="Scorecard_Measures__" DimensionValue="Target" HeaderType="KpiTarget"
GroupId="-4" Depth="1" LevelDepth="-1" DescendantSpan="0" LeafSpan="1" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Target" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="" />
          <BpmProperties />
          <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
           <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="Right" />
           <FilterEmptyRows>false</FilterEmptyRows>
           <Position>Left</Position>
           <PositionActual>NotDisplayed</PositionActual>
           <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
           <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
            <Position>Center</Position>
           </IndicatorSettings>
          </TargetSettings>
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
        </Children>
        <OverrideIndicatorLocation ItemUrl="" />
        <LinkedKpiLocation ItemUrl="" />
        <BpmProperties />
        <TrendIndicatorLocation ItemUrl="" />
       </RootColumnHeader>
       <DefaultRollupIndicatorId>00000000-0000-0000-0000-
000000000000</DefaultRollupIndicatorId>
       <DefaultRollupIndicatorLocation ItemUrl="" />
       <CellBorderColor A="255" R="208" G="216" B="229" />
     </GridViewDefinition>
     </ConfiguredView>
    </ConfiguredViews>
    <EndPoints>
     <EndPoint Category="Axis" UniqueName="EndPoint Page" DisplayName="Page"
AcceptsMultipleFilterLinks="true" />
     <EndPoint Category="Axis" UniqueName="EndPoint Row" DisplayName="Row"
AcceptsMultipleFilterLinks="false" />
     <EndPoint Category="Axis" UniqueName="EndPoint_Column" DisplayName="Column"
AcceptsMultipleFilterLinks="false" />
     <EndPoint Category="Axis" UniqueName="EndPoint TIFormula" DisplayName="TI formula"
AcceptsMultipleFilterLinks="true" />
     <EndPoint Category="Axis" UniqueName="EndPoint CurrentDate-Time" DisplayName="Current
date-time" AcceptsMultipleFilterLinks="true" />
    </EndPoints>
    <BeginPoints>
     <ParameterDefinition>
      <ParameterUniqueName>0f6ca5f9-e8d9-4fd9-bf4e-d6aa03f2d745</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
```


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```
            <xs:sequence>
             <xs:element name="Key" type="xs:string" minOccurs="0" />
             <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
             <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
             <xs:element name="KpiId" msprop:NotShowColumnForCondVisibility="True"
msprop:ShowColumn="True" type="xs:string" minOccurs="0" />
             <xs:element name="Name" msprop:NotShowColumnForCondVisibility="True"
msprop:ShowColumn="True" type="xs:string" minOccurs="0" />
             <xs:element name="Description" msprop:NotShowColumnForCondVisibility="True"
msprop:ShowColumn="True" type="xs:string" minOccurs="0" />
             <xs:element name="Person_x0020_Responsible"
msprop:NotShowColumnForCondVisibility="True" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
            </xs:sequence>
           </xs:complexType>
          </xs:element>
         </xs:choice>
        </xs:complexType>
       </xs:element>
      </xs:schema>
      <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
     </DisplayValues>
     <CustomDefinition>BeginPoint_Kpi</CustomDefinition>
     <ParameterProviderId>ParameterScorecardKpiProvider</ParameterProviderId>
     <DisplayName>KPI</DisplayName>
     <EmitterType>BothAConditionalVisibilityAndParameterEmitter</EmitterType>
     <KeyColumn>Key</KeyColumn>
     <ParentKeyColumn>ParentKey</ParentKeyColumn>
     <DisplayColumn>DisplayValue</DisplayColumn>
     <IsDefaultColumn>IsDefault</IsDefaultColumn>
     <DefaultPostFormula />
    </ParameterDefinition>
    <ParameterDefinition>
     <ParameterUniqueName>c9b6e4c4-4f13-4d17-99b9-1b7f77fafd34</ParameterUniqueName>
     <DisplayValues>
      <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
       <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
        <xs:complexType>
         <xs:choice minOccurs="0" maxOccurs="unbounded">
          <xs:element name="ParameterData" msdata:Locale="en-US">
           <xs:complexType>
            <xs:sequence>
             <xs:element name="Key" type="xs:string" minOccurs="0" />
             <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
             <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
             <xs:element name="CellDisplay" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
            </xs:sequence>
           </xs:complexType>
          </xs:element>
         </xs:choice>
        </xs:complexType>
       </xs:element>
      </xs:schema>
      <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
     </DisplayValues>
     <CustomDefinition>BeginPoint_ScorecardCell</CustomDefinition>
     <ParameterProviderId>ParameterScorecardCellProvider</ParameterProviderId>
     <DisplayName>Cell</DisplayName>
     <EmitterType>ParameterEmitter</EmitterType>
```


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```
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
     <ParameterDefinition>
      <ParameterUniqueName>cb138e38-09b0-42e1-8219-b26d3ffba337</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="MemberUniqueName" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint_ScorecardRowMember</CustomDefinition>
      <ParameterProviderId>ParameterScorecardRowMemberProvider</ParameterProviderId>
      <DisplayName>Row Member</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
     <ParameterDefinition>
      <ParameterUniqueName>fbf44bbb-d222-431b-930a-ac41c9a58127</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="MemberUniqueName" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
```


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```
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint_ScorecardColumnMember</CustomDefinition>
      <ParameterProviderId>ParameterScorecardColumnMemberProvider</ParameterProviderId>
      <DisplayName>Column Member</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
    </BeginPoints>
   </scorecard>
  </UpdateScorecard>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <UpdateScorecardResponse xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <UpdateScorecardResult Folder="" CreatedBy="Sample User" CreatedDate="2009-05-21T13:10:54"
ContentType="PpsScorecard" LastModified="2009-05-21T15:39:11" ModifiedBy="Sample User"
CheckedOutTo="" TemplateType="General"
RendererClassName="Microsoft.PerformancePoint.Scorecards.ServerRendering.ScorecardCtrl,
Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=94de0004b6e3fcc5">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="MyScorecard" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="3" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Lists/Dashboard Content/2_.000" ItemType="Scorecard"
ItemGuid="22dd6dc3-247c-43b1-b246-6ab222e9001e" SpSiteCollectionGuid="7d7875a5-583b-419c-
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="c2f6f377-
a268-4cf1-a9fc-76d4b2ddabe0" />
    <ConfiguredViews>
     <ConfiguredView Guid="9bb8d042-eff9-415c-baa4-3d0c5507e441" AllowStatusFilter="true"
AllowFilter="true" AllowSort="true" AllowAnnotations="true" EmptyRowsFilterMode="None"
AllowShowDetails="true" ShowInfoToolTips="false" EnableTextwrap="false"
MaintainMemberLevelDepth="true" AllowDynamicRowMemberExpansion="true"
AllowDynamicColumnMemberExpansion="true" AllowRowDrill="true" AllowColumnDrill="true"
AlwaysShowAnnotationCellFlags="false" ExpandToFitWidth="false" HideScorecard="false"
ShowStatusFiltersByDefault="false">
      <Properties>
       <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="Default View" />
```


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```
       <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
       <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
      </Properties>
      <Comments />
      <ToolbarOptions ShowInlineText="true" ShowToolbar="false" ShowPageFilters="true"
ShowRefresh="true" ShowStatusFilter="true" ShowToolTips="true" ShowCollapse="true"
ShowMode="true" ShowPrint="true" ShowExpand="true" ShowCellSelection="false"
AnnotationOnByDefault="true" ShowPageFiltersByDefault="false"
ShowStatusFilterByDefault="false" ShowToolbarItemsLabel="false" ShowDefaultRollup="true"
ShowWorstChildRollup="true" ShowIndicatorCount="true" />
      <DataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1_.000"
ItemType="DataSource" ItemGuid="571b7526-4246-4926-b05c-7c1a350ce3e2"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="d5f0d9e4-7473-4845-820a-920dedeb0593" />
      <GridViewDefinition EmptyCell="" InvalidCell="Error" ShowGridLines="true"
ShowHiddenHeaders="false" ShowMetricHeaders="true" ShowPlusMinus="true">
       <CornerCellFormatInfo TextWrap="Undefined" VerticalAlignment="Middle"
HorizontalAlignment="Center">
        <BackColor A="0" R="235" G="243" B="255" />
       </CornerCellFormatInfo>
       <RootRowHeader Id="0" Guid="fd56bee3-dba4-400b-99e2-f1e14f5956a3"
DefinitionGuid="fd56bee3-dba4-400b-99e2-f1e14f5956a3" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="0" DescendantSpan="0" LeafSpan="0" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
        <Children>
         <GridHeaderItem Id="1" Guid="b70a0ba9-ea56-4ffa-bc41-bd190f06cc1d"
DefinitionGuid="b70a0ba9-ea56-4ffa-bc41-bd190f06cc1d" DisplayText=""
DimensionName="Scorecard__" DimensionValue="/PerformancePoint/Lists/Dashboard Content/1_.000"
HeaderType="Kpi" GroupId="-1" Depth="0" LevelDepth="0" DescendantSpan="0" LeafSpan="0"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/1_.000"
ItemType="Kpi" ItemGuid="87b809c4-bda0-4670-9c5d-3fbcac4102ab"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
          <BpmProperties />
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
         <GridHeaderItem Id="2" Guid="db9f17e1-a0a3-41d6-a492-56240189204d"
DefinitionGuid="db9f17e1-a0a3-41d6-a492-56240189204d" DisplayText="InternetSales"
DimensionName="Scorecard  " DimensionValue="/PerformancePoint/Lists/Dashboard Content/4 .000"
HeaderType="Kpi" GroupId="-5" Depth="0" LevelDepth="0" DescendantSpan="0" LeafSpan="0"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
```


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```
          <LinkedKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/4_.000"
ItemType="Kpi" ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-
9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
          <BpmProperties />
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
        </Children>
        <OverrideIndicatorLocation ItemUrl="" />
        <LinkedKpiLocation ItemUrl="" />
        <BpmProperties />
        <TrendIndicatorLocation ItemUrl="" />
       </RootRowHeader>
       <RootColumnHeader Id="0" Guid="09055f3f-77da-4fb0-9482-d434fa95f81c"
DefinitionGuid="09055f3f-77da-4fb0-9482-d434fa95f81c" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="-1" DescendantSpan="0" LeafSpan="0" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
        <Children>
         <GridHeaderItem Id="1" Guid="13c063f8-e3ba-459d-a7f9-526fdc3b29de"
DefinitionGuid="13c063f8-e3ba-459d-a7f9-526fdc3b29de" DisplayText="Actual"
DimensionName="Scorecard_Measures__" DimensionValue="Actual" HeaderType="KpiActual"
GroupId="-3" Depth="0" LevelDepth="-1" DescendantSpan="0" LeafSpan="0" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Actual" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="" />
          <BpmProperties />
          <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
           <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="NotDisplayed" />
           <FilterEmptyRows>false</FilterEmptyRows>
           <Position>NotDisplayed</Position>
           <PositionActual>NotDisplayed</PositionActual>
           <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
           <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
            <Position>Center</Position>
           </IndicatorSettings>
          </TargetSettings>
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
         <GridHeaderItem Id="2" Guid="f6b2afe4-fe5b-47a1-974b-c7e59ab3f80f"
DefinitionGuid="f6b2afe4-fe5b-47a1-974b-c7e59ab3f80f" DisplayText="Target"
DimensionName="Scorecard Measures  " DimensionValue="Target" HeaderType="KpiTarget"
GroupId="-4" Depth="0" LevelDepth="-1" DescendantSpan="0" LeafSpan="0" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Target" AggregationType="None">
          <Children />
          <OverrideIndicatorLocation ItemUrl="" />
          <LinkedKpiLocation ItemUrl="" />
```


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```
          <BpmProperties />
          <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
           <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="Right" />
           <FilterEmptyRows>false</FilterEmptyRows>
           <Position>Left</Position>
           <PositionActual>NotDisplayed</PositionActual>
           <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
           <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
            <Position>Center</Position>
           </IndicatorSettings>
          </TargetSettings>
          <TrendIndicatorLocation ItemUrl="" />
         </GridHeaderItem>
        </Children>
        <OverrideIndicatorLocation ItemUrl="" />
        <LinkedKpiLocation ItemUrl="" />
        <BpmProperties />
        <TrendIndicatorLocation ItemUrl="" />
       </RootColumnHeader>
       <DefaultRollupIndicatorId>00000000-0000-0000-0000-
000000000000</DefaultRollupIndicatorId>
       <DefaultRollupIndicatorLocation ItemUrl="" />
       <CellBorderColor A="255" R="208" G="216" B="229" />
     </GridViewDefinition>
     </ConfiguredView>
    </ConfiguredViews>
    <EndPoints>
     <EndPoint Category="Axis" UniqueName="EndPoint_Page" DisplayName="Page"
AcceptsMultipleFilterLinks="true" />
     <EndPoint Category="Axis" UniqueName="EndPoint Row" DisplayName="Row"
AcceptsMultipleFilterLinks="false" />
     <EndPoint Category="Axis" UniqueName="EndPoint Column" DisplayName="Column"
AcceptsMultipleFilterLinks="false" />
     <EndPoint Category="Axis" UniqueName="EndPoint_TIFormula" DisplayName="TI formula"
AcceptsMultipleFilterLinks="true" />
     <EndPoint Category="Axis" UniqueName="EndPoint CurrentDate-Time" DisplayName="Current
date-time" AcceptsMultipleFilterLinks="true" />
    </EndPoints>
    <BeginPoints>
     <ParameterDefinition>
      <ParameterUniqueName>0f6ca5f9-e8d9-4fd9-bf4e-d6aa03f2d745</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="KpiId" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
              <xs:element name="Name" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
              <xs:element name="Description" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
              <xs:element name="Person_x0020_Responsible" msprop:ShowColumn="True"
msprop:NotShowColumnForCondVisibility="True" type="xs:string" minOccurs="0" />
```


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```
            </xs:sequence>
           </xs:complexType>
          </xs:element>
         </xs:choice>
        </xs:complexType>
       </xs:element>
      </xs:schema>
      <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
    </DisplayValues>
    <CustomDefinition>BeginPoint Kpi</CustomDefinition>
    <ParameterProviderId>ParameterScorecardKpiProvider</ParameterProviderId>
    <DisplayName>KPI</DisplayName>
    <EmitterType>BothAConditionalVisibilityAndParameterEmitter</EmitterType>
    <KeyColumn>Key</KeyColumn>
    <ParentKeyColumn>ParentKey</ParentKeyColumn>
    <DisplayColumn>DisplayValue</DisplayColumn>
    <IsDefaultColumn>IsDefault</IsDefaultColumn>
    <DefaultPostFormula />
   </ParameterDefinition>
   <ParameterDefinition>
    <ParameterUniqueName>c9b6e4c4-4f13-4d17-99b9-1b7f77fafd34</ParameterUniqueName>
    <DisplayValues>
     <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
      <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
       <xs:complexType>
        <xs:choice minOccurs="0" maxOccurs="unbounded">
         <xs:element name="ParameterData" msdata:Locale="en-US">
          <xs:complexType>
           <xs:sequence>
            <xs:element name="Key" type="xs:string" minOccurs="0" />
            <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
            <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
            <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
            <xs:element name="CellDisplay" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
           </xs:sequence>
          </xs:complexType>
         </xs:element>
        </xs:choice>
       </xs:complexType>
      </xs:element>
     </xs:schema>
     <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
    </DisplayValues>
    <CustomDefinition>BeginPoint_ScorecardCell</CustomDefinition>
    <ParameterProviderId>ParameterScorecardCellProvider</ParameterProviderId>
    <DisplayName>Cell</DisplayName>
    <EmitterType>ParameterEmitter</EmitterType>
    <KeyColumn>Key</KeyColumn>
    <ParentKeyColumn>ParentKey</ParentKeyColumn>
    <DisplayColumn>DisplayValue</DisplayColumn>
    <IsDefaultColumn>IsDefault</IsDefaultColumn>
    <DefaultPostFormula />
   </ParameterDefinition>
   <ParameterDefinition>
    <ParameterUniqueName>cb138e38-09b0-42e1-8219-b26d3ffba337</ParameterUniqueName>
    <DisplayValues>
     <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
      <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
       <xs:complexType>
```


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```
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="MemberUniqueName" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint_ScorecardRowMember</CustomDefinition>
      <ParameterProviderId>ParameterScorecardRowMemberProvider</ParameterProviderId>
      <DisplayName>Row Member</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
      <DefaultPostFormula />
     </ParameterDefinition>
     <ParameterDefinition>
      <ParameterUniqueName>fbf44bbb-d222-431b-930a-ac41c9a58127</ParameterUniqueName>
      <DisplayValues>
       <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-
com:xml-msprop">
        <xs:element name="NewDataSet" msdata:IsDataSet="true"
msdata:MainDataTable="ParameterData" msdata:Locale="en-US">
         <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
           <xs:element name="ParameterData" msdata:Locale="en-US">
            <xs:complexType>
             <xs:sequence>
              <xs:element name="Key" type="xs:string" minOccurs="0" />
              <xs:element name="ParentKey" type="xs:string" minOccurs="0" />
              <xs:element name="DisplayValue" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
              <xs:element name="IsDefault" type="xs:boolean" minOccurs="0" />
              <xs:element name="MemberUniqueName" msprop:ShowColumn="True" type="xs:string"
minOccurs="0" />
             </xs:sequence>
            </xs:complexType>
           </xs:element>
          </xs:choice>
         </xs:complexType>
        </xs:element>
       </xs:schema>
       <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" />
      </DisplayValues>
      <CustomDefinition>BeginPoint_ScorecardColumnMember</CustomDefinition>
      <ParameterProviderId>ParameterScorecardColumnMemberProvider</ParameterProviderId>
      <DisplayName>Column Member</DisplayName>
      <EmitterType>ParameterEmitter</EmitterType>
      <KeyColumn>Key</KeyColumn>
      <ParentKeyColumn>ParentKey</ParentKeyColumn>
      <DisplayColumn>DisplayValue</DisplayColumn>
      <IsDefaultColumn>IsDefault</IsDefaultColumn>
```


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```
      <DefaultPostFormula />
     </ParameterDefinition>
    </BeginPoints>
   </UpdateScorecardResult>
  </UpdateScorecardResponse>
 </soap:Body>
</soap:Envelope>
```

4.1.4 GenerateView

The protocol client then calls **GenerateView** to get the scorecard result data set.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <GenerateView xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <scorecardLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/8_.000" />
   <propertyBags>
    <Keys />
    <Values />
   </propertyBags>
  </GenerateView>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <GenerateViewResponse xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <GenerateViewResult ScorecardViewId="7675ef55-d456-469e-9381-8c1eddd94c1d"
Cached="false" DefaultRollupIndicatorId="00000000-0000-0000-0000-000000000000"
EmptyCell="" InvalidCell="Error" TIFormula="" TICurrentDateTime="">
    <Cells>
     <Table>
      <Keys>
       <string>/PerformancePoint/Lists/Dashboard
Content/4_.000:/PerformancePoint/Lists/Dashboard Content/4_.0001_Actual:Actual1_</string>
       <string>/PerformancePoint/Lists/Dashboard
Content/4_.000:/PerformancePoint/Lists/Dashboard Content/4_.0001_Target:Target2_</string>
       <string>Actual:Actual1 </string>
       <string>Target:Target2_</string>
      </Keys>
      <Values>
       <GridCell Value="29358677.2207" ActualValue="29358677.2207" Score="0" Weight="1"
BestChildScore="0" WorstChildScore="0" IsValueInError="false" HasAnnotation="false"
IsRollupScore="false" ValueSource="SourceData" IsValidScore="true">
        <Properties>
         <Keys />
         <Values />
        </Properties>
        <DisplayElements>
         <GridDisplayElement xsi:type="GridDisplayElementActual" Status="0"
Value="29358677.2207" OverrideValue="29358677.2207">
          <Text>$29,358,677.22</Text>
          <TooltipText />
         </GridDisplayElement>
```


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```
        </DisplayElements>
        <IndicatorLocation ItemUrl="" />
        <InBand>-1</InBand>
       </GridCell>
       <GridCell Value="1" ActualValue="29358677.2207" Score="100" Weight="1"
BestChildScore="100" WorstChildScore="100" IsValueInError="false" HasAnnotation="false"
IsRollupScore="false" ValueSource="SourceData" IsValidScore="true">
        <Properties>
         <Keys />
         <Values />
        </Properties>
        <DisplayElements>
         <GridDisplayElement xsi:type="GridDisplayElementTarget" Status="0" Value="1"
OverrideValue="1">
          <Text>1</Text>
          <TooltipText />
         </GridDisplayElement>
         <GridDisplayElement xsi:type="GridDisplayElementIndicator" Status="0"
IndicatorBand="3">
          <Text>On Target</Text>
          <TooltipText>On Target</TooltipText>
          <IndicatorLocation ItemUrl="/PPSBUILTININDICATOR/0_.000" />
         </GridDisplayElement>
         <GridDisplayElement xsi:type="GridDisplayElementVariance" Status="0"
Value="29358676.2207" OverrideValue="2935867622">
          <Text>2,935,867,622%</Text>
          <TooltipText />
         </GridDisplayElement>
        </DisplayElements>
        <IndicatorLocation ItemUrl="/PPSBUILTININDICATOR/0_.000" />
        <InBand>3</InBand>
       </GridCell>
       <GridCell Value="0" ActualValue="0" Score="0" Weight="1" BestChildScore="0"
WorstChildScore="0" IsValueInError="false" HasAnnotation="false" IsRollupScore="false"
ValueSource="Default" IsValidScore="true">
        <Properties>
         <Keys />
         <Values />
        </Properties>
        <DisplayElements />
        <IndicatorLocation ItemUrl="" />
        <InBand>-1</InBand>
       </GridCell>
       <GridCell Value="0" ActualValue="0" Score="0" Weight="1" BestChildScore="0"
WorstChildScore="0" IsValueInError="false" HasAnnotation="false" IsRollupScore="false"
ValueSource="Default" IsValidScore="true">
        <Properties>
         <Keys />
         <Values />
        </Properties>
        <DisplayElements />
        <IndicatorLocation ItemUrl="" />
        <InBand>-1</InBand>
       </GridCell>
      </Values>
     </Table>
    </Cells>
    <RootRowHeader Id="0" Guid="ffa9ff3b-ea47-4149-8a9e-d5f06d938f2f"
DefinitionGuid="ffa9ff3b-ea47-4149-8a9e-d5f06d938f2f" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="0" DescendantSpan="1" LeafSpan="1" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="false" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
     <Children>
```


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```
      <GridHeaderItem Id="1" Guid="af0bd13a-2ad5-4470-b81c-14ef2e7cafd3"
DefinitionGuid="af0bd13a-2ad5-4470-b81c-14ef2e7cafd3" DisplayText="InternetSales"
DimensionName="Scorecard__" DimensionValue="/PerformancePoint/Lists/Dashboard
Content/4_.000" HeaderType="Kpi" GroupId="-4" Depth="1" LevelDepth="0" DescendantSpan="0"
LeafSpan="1" IsCollapsed="false" IsDynamicCellExpansionEnabled="false"
IsDrillEnabled="false" IsDrillDownDisabled="false" IsDrillUpDisabled="false"
IsDynamicallyExpandedHeader="false" MaintainMemberLevelDepth="false" IsCellHidden="false"
IsPathHidden="false" IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false"
IsNamedSetEmpty="false" NamedSetType="None" UseLinkedElementDisplayText="true"
ShowHyperlinkInNewWindow="false" IsHierarchyHeader="false" IsColumnHeader="false"
AppendFilterInfoToHyperlink="false" Weight="1" AggregationType="None">
       <Children />
       <OverrideIndicatorLocation ItemUrl="" />
       <LinkedKpiLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/4_.000"
ItemType="Kpi" ItemGuid="d4a177e7-721b-4793-981b-94e6b44fb791"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-
4602-9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
       <BpmProperties />
       <TrendIndicatorLocation ItemUrl="" />
      </GridHeaderItem>
     </Children>
     <OverrideIndicatorLocation ItemUrl="" />
     <LinkedKpiLocation ItemUrl="" />
     <BpmProperties />
     <TrendIndicatorLocation ItemUrl="" />
    </RootRowHeader>
    <RootColumnHeader Id="0" Guid="ab5c8048-cae2-4054-88bb-917449fda92e"
DefinitionGuid="ab5c8048-cae2-4054-88bb-917449fda92e" DisplayText="" HeaderType="None"
GroupId="0" Depth="0" LevelDepth="-1" DescendantSpan="1" LeafSpan="2" IsCollapsed="false"
IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false" IsDrillDownDisabled="false"
IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" AggregationType="None">
     <Children>
      <GridHeaderItem Id="1" Guid="c3d60c40-8627-4a07-8e74-2e9bbc6776c5"
DefinitionGuid="c3d60c40-8627-4a07-8e74-2e9bbc6776c5" DisplayText="Actual"
DimensionName="Scorecard Measures  " DimensionValue="Actual" HeaderType="KpiActual"
GroupId="-2" Depth="1" LevelDepth="-1" DescendantSpan="0" LeafSpan="1"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Actual" AggregationType="None">
       <Children />
       <OverrideIndicatorLocation ItemUrl="" />
       <LinkedKpiLocation ItemUrl="" />
       <BpmProperties />
       <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
        <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="NotDisplayed" />
        <FilterEmptyRows>false</FilterEmptyRows>
        <Position>NotDisplayed</Position>
        <PositionActual>NotDisplayed</PositionActual>
        <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
        <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
         <Position>Center</Position>
        </IndicatorSettings>
       </TargetSettings>
       <TrendIndicatorLocation ItemUrl="" />
      </GridHeaderItem>
```


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```
      <GridHeaderItem Id="2" Guid="a6d178eb-68d9-430a-a3ba-0b4cbef77511"
DefinitionGuid="a6d178eb-68d9-430a-a3ba-0b4cbef77511" DisplayText="Target"
DimensionName="Scorecard_Measures__" DimensionValue="Target" HeaderType="KpiTarget"
GroupId="-3" Depth="1" LevelDepth="-1" DescendantSpan="0" LeafSpan="1"
IsCollapsed="false" IsDynamicCellExpansionEnabled="false" IsDrillEnabled="false"
IsDrillDownDisabled="false" IsDrillUpDisabled="false" IsDynamicallyExpandedHeader="false"
MaintainMemberLevelDepth="false" IsCellHidden="false" IsPathHidden="false"
IsHiddenBasedOnFilterStatus="false" IsNamedSetInError="false" IsNamedSetEmpty="false"
NamedSetType="None" UseLinkedElementDisplayText="true" ShowHyperlinkInNewWindow="false"
IsHierarchyHeader="false" IsColumnHeader="true" AppendFilterInfoToHyperlink="false"
Weight="1" KpiTargetName="Target" AggregationType="None">
       <Children />
       <OverrideIndicatorLocation ItemUrl="" />
       <LinkedKpiLocation ItemUrl="" />
       <BpmProperties />
       <TargetSettings ShowValue="true" ShowActualAsTarget="false"
IgnoreScoreFilter="false">
        <VarianceSettings NumDecimalPlaces="0" VarianceType="VarianceToTarget"
DisplayType="ShowPercent" ShowValue="false" Position="Right" />
        <FilterEmptyRows>false</FilterEmptyRows>
        <Position>Left</Position>
        <PositionActual>NotDisplayed</PositionActual>
        <ScoreSettings ShowValue="false" ScoreType="Normalized"
RollupType="AverageWeighted" Position="NotDisplayed" />
        <IndicatorSettings ShowImage="true" ShowText="false" ShowForeColor="false"
ShowBackColor="false">
         <Position>Center</Position>
        </IndicatorSettings>
       </TargetSettings>
       <TrendIndicatorLocation ItemUrl="" />
      </GridHeaderItem>
     </Children>
     <OverrideIndicatorLocation ItemUrl="" />
     <LinkedKpiLocation ItemUrl="" />
     <BpmProperties />
     <TrendIndicatorLocation ItemUrl="" />
    </RootColumnHeader>
    <ScorecardLocation ItemUrl="/PerformancePoint/Lists/Dashboard Content/8_.000"
ItemType="Scorecard" ItemGuid="cb692449-f20e-4809-9ee3-e012c78f026e"
SpSiteCollectionGuid="7d7875a5-583b-419c-ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-
4602-9a4c-69695440dca4" SpListGuid="c2f6f377-a268-4cf1-a9fc-76d4b2ddabe0" />
    <DefaultRollupIndicatorLocation ItemUrl="" />
    <PreQueryTransforms>
     <GridViewTransformReference Id="ExpandNamedSets">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
     <GridViewTransformReference Id="MemberTransforms">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
     <GridViewTransformReference Id="UpdateDisplayText">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
    </PreQueryTransforms>
    <PostQueryTransforms>
     <GridViewTransformReference Id="AnnotationTransform">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
```


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```
    </PostQueryTransforms>
    <PreRenderTransforms>
     <GridViewTransformReference Id="ComputeAggregations">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
     <GridViewTransformReference Id="ComputeRollups">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
     <GridViewTransformReference Id="FilterEmptyRows">
      <Parameters>
       <Keys />
       <Values />
      </Parameters>
     </GridViewTransformReference>
    </PreRenderTransforms>
    <PerUserTransforms />
    <PageFilters />
   </GenerateViewResult>
  </GenerateViewResponse>
 </soap:Body>
</soap:Envelope>
```

4.1.5 DeleteScorecard

The protocol client then calls **DeleteScorecard** to delete the scorecard.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <DeleteScorecard xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <location ItemUrl="/PerformancePoint/Lists/Dashboard Content/2_.000" ItemType="Scorecard"
ItemGuid="22dd6dc3-247c-43b1-b246-6ab222e9001e" SpSiteCollectionGuid="7d7875a5-583b-419c-
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="c2f6f377-
a268-4cf1-a9fc-76d4b2ddabe0" />
  </DeleteScorecard>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <DeleteScorecardResponse xmlns="http://www.microsoft.com/performancepoint/scorecards" />
 </soap:Body>
</soap:Envelope>
```


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4.2 Create and Use a DataSource

This scenario involves the creation of a **DataSource** complex type (section 2.2.4.85). The protocol client creates a **DataSource**, tests connectivity to that **DataSource**, and retrieves **dimension** data from the **DataSource**.

It is assumed that an analysis **server (2)** (cubes3) exists with a database (Adventure Works DW) and a **cube** (Adventure Works).

4.2.1 CreateDataSource

The protocol client calls the **CreateDataSource** operation (section 3.1.4.3) to create a new **DataSource** complex type (section 2.2.4.85).

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <CreateDataSource xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <listUrl>/PerformancePoint/Data Sources</listUrl>
   <dataSource Folder="" CreatedBy="" CreatedDate="2009-05-21T12:59:13"
ContentType="PpsDataSource" LastModified="0001-01-01T00:00:00" ModifiedBy="" CheckedOutTo=""
SourceName="ADOMD.NET" ServerName="cubes3" DatabaseName="Adventure Works DW"
CubeName="Adventure Works" CubeDisplayName="Adventure Works" FormattingDimensionName=""
FormattingDimensionDisplayName="" FormattingDimensionType="Other" ConnectionString=""
Roles="" UseConnectionString="false" ConnectionContext="ConnectAsSharedUser"
PassUserNameAsAdomdCustomData="false" ReadOnly="false" MinutesToCache="10"
ServerMajorVersion="0" SubTypeId="ADOMD.NET">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="New Data Source" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="0" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Data Sources" />
    <Variables />
    <CustomTimeIntelligenceSettings>&lt;?xml version="1.0" encoding="utf-16"?&gt;
&lt;TimeIntelligenceMdxSettings xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"&gt;
  &lt;Enabled&gt;true&lt;/Enabled&gt;
  &lt;ReferenceLevel&gt;None&lt;/ReferenceLevel&gt;
  &lt;ReferenceDateTime&gt;0001-01-01T00:00:00&lt;/ReferenceDateTime&gt;
  &lt;LevelBindings /&gt;
&lt;/TimeIntelligenceMdxSettings&gt;</CustomTimeIntelligenceSettings>
    <DataTableMapping DateAggregationType="Year" CalendarStartMonth="0">
     <ColumnMappings />
    </DataTableMapping>
   </dataSource>
  </CreateDataSource>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

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```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <CreateDataSourceResponse xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <CreateDataSourceResult Folder="" CreatedBy="REDMOND\sbishel" CreatedDate="2009-05-
21T12:59:34" ContentType="PpsDataSource" LastModified="2009-05-21T12:59:42"
ModifiedBy="REDMOND\sbishel" CheckedOutTo="" SourceName="ADOMD.NET" ServerName=""
DatabaseName="" CubeName="" CubeDisplayName="" FormattingDimensionName=""
FormattingDimensionDisplayName="" FormattingDimensionType="Other" ConnectionString=""
Roles="" UseConnectionString="false" ConnectionContext="ConnectAsSharedUser"
PassUserNameAsAdomdCustomData="false" ReadOnly="false" MinutesToCache="10"
ServerMajorVersion="0" SubTypeId="ADOMD.NET">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="New Data Source" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="1" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Data Sources/1_.000" ItemType="DataSource"
ItemGuid="37f08ea5-2f7c-4eda-9085-f1858f065447" SpSiteCollectionGuid="7d7875a5-583b-419c-
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="d5f0d9e4-
7473-4845-820a-920dedeb0593" />
    <Variables />
    <CustomTimeIntelligenceSettings>&lt;?xml version="1.0" encoding="utf-16"?&gt;
&lt;TimeIntelligenceMdxSettings xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"&gt;
  &lt;Enabled&gt;true&lt;/Enabled&gt;
  &lt;ReferenceLevel&gt;None&lt;/ReferenceLevel&gt;
  &lt;ReferenceDateTime&gt;0001-01-01T00:00:00&lt;/ReferenceDateTime&gt;
  &lt;LevelBindings /&gt;
&lt;/TimeIntelligenceMdxSettings&gt;</CustomTimeIntelligenceSettings>
    <DataTableMapping DateAggregationType="Year" CalendarStartMonth="0">
     <ColumnMappings />
    </DataTableMapping>
   </CreateDataSourceResult>
  </CreateDataSourceResponse>
 </soap:Body>
</soap:Envelope>
```

4.2.2 TestDataSource

The protocol client calls **TestDataSource** to test connectivity to the data source.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <TestConnection xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <dataSource Folder="" CreatedBy="REDMOND\sbishel" CreatedDate="2009-05-21T12:59:13"
ContentType="PpsDataSource" LastModified="2009-05-21T13:12:09" ModifiedBy="REDMOND\sbishel"
CheckedOutTo="" SourceName="ADOMD.NET" ServerName="cubes3" DatabaseName="Adventure Works DW"
CubeName="Adventure Works" CubeDisplayName="Adventure Works" FormattingDimensionName=""
FormattingDimensionDisplayName="" FormattingDimensionType="Other" ConnectionString=""
Roles="" UseConnectionString="false" ConnectionContext="ConnectAsSharedUser"
```


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```
PassUserNameAsAdomdCustomData="false" ReadOnly="false" MinutesToCache="10"
ServerMajorVersion="9" SubTypeId="ADOMD.NET">
    <Properties>
     <BpmProperty xsi:type="BpmPropertyText"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Name" DisplayName="Name"
Description="Name Description" Required="false" Visible="true" Text="AdventureWorks" />
     <BpmProperty xsi:type="BpmPropertyLongText"
UniqueName="8dd07d4d87794510afdb1f07664359bc Element Description" DisplayName="Description"
Description="Description Description" Required="false" Visible="true" Text="" />
     <BpmProperty xsi:type="BpmPropertyUser"
UniqueName="8dd07d4d87794510afdb1f07664359bc_Element_Owner" DisplayName="Person Responsible"
Description="Person Responsible Description" Required="false" Visible="true" Login="" />
    </Properties>
    <Comments />
    <Version Major="3" Minor="0" />
    <Location ItemUrl="/PerformancePoint/Data Sources/1 .000" ItemType="DataSource"
ItemGuid="571b7526-4246-4926-b05c-7c1a350ce3e2" SpSiteCollectionGuid="7d7875a5-583b-419c-
ab90-ca79a98a2083" SpSiteGuid="94d89bc7-7a1d-4602-9a4c-69695440dca4" SpListGuid="d5f0d9e4-
7473-4845-820a-920dedeb0593" />
    <Variables />
    <CustomTimeIntelligenceSettings>&lt;?xml version="1.0" encoding="utf-16"?&gt;
&lt;TimeIntelligenceMdxSettings xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"&gt;
  &lt;Enabled&gt;true&lt;/Enabled&gt;
  &lt;ReferenceLevel&gt;None&lt;/ReferenceLevel&gt;
  &lt;ReferenceDateTime&gt;0001-01-01T00:00:00&lt;/ReferenceDateTime&gt;
  &lt;LevelBindings /&gt;
&lt;/TimeIntelligenceMdxSettings&gt;</CustomTimeIntelligenceSettings>
    <DataTableMapping DateAggregationType="Year" CalendarStartMonth="0">
     <ColumnMappings />
    </DataTableMapping>
   </dataSource>
  </TestConnection>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <TestConnectionResponse xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <TestConnectionResult>true</TestConnectionResult>
  </TestConnectionResponse>
 </soap:Body>
</soap:Envelope>
```

4.2.3 GetDimensions

The protocol client now calls **GetDimensions** to retrieve the available **dimensions** from the data source.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <GetDimensions xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <dataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1 .000" />
  </GetDimensions>
```


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```
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <GetDimensionsFromDataSourceResponse
xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <GetDimensionsFromDataSourceResult>
    <Dimension DisplayName="Account.Account" UniqueName="[Account].[Account]" Description=""
IsMeasureDimension="false" DefaultMemberName="[Account].[Account].[All Accounts]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="(All)" UniqueName="[Account].[Account].[(All)]" Description=""
DimensionUniqueName="[Account].[Account]" IsAllLevel="true" LevelNumber="0" />
      <Level DisplayName="Account" UniqueName="[Account].[Account].[Account]" Description=""
DimensionUniqueName="[Account].[Account]" IsAllLevel="false" LevelNumber="1" />
     </Levels>
    </Dimension>
    <Dimension DisplayName="Account.Account Number" UniqueName="[Account].[Account Number]"
Description="" IsMeasureDimension="false" DefaultMemberName="[Account].[Account Number].[All
Accounts]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="(All)" UniqueName="[Account].[Account Number].[(All)]"
Description="" DimensionUniqueName="[Account].[Account Number]" IsAllLevel="true"
LevelNumber="0" />
      <Level DisplayName="Account Number" UniqueName="[Account].[Account Number].[Account
Number]" Description="" DimensionUniqueName="[Account].[Account Number]" IsAllLevel="false"
LevelNumber="1" />
     </Levels>
    </Dimension>
    <Dimension DisplayName="Account.Account Type" UniqueName="[Account].[Account Type]"
Description="" IsMeasureDimension="false" DefaultMemberName="[Account].[Account Type].[All
Accounts]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="(All)" UniqueName="[Account].[Account Type].[(All)]" Description=""
DimensionUniqueName="[Account].[Account Type]" IsAllLevel="true" LevelNumber="0" />
      <Level DisplayName="Account Type" UniqueName="[Account].[Account Type].[Account Type]"
Description="" DimensionUniqueName="[Account].[Account Type]" IsAllLevel="false"
LevelNumber="1" />
     </Levels>
    </Dimension>
    <Dimension DisplayName="Account.Accounts" UniqueName="[Account].[Accounts]"
Description="" IsMeasureDimension="false" DefaultMemberName="[Account].[Accounts].&amp;[47]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="Account Level 01" UniqueName="[Account].[Accounts].[Account Level
01]" Description="" DimensionUniqueName="[Account].[Accounts]" IsAllLevel="false"
LevelNumber="0" />
      <Level DisplayName="Account Level 02" UniqueName="[Account].[Accounts].[Account Level
02]" Description="" DimensionUniqueName="[Account].[Accounts]" IsAllLevel="false"
LevelNumber="1" />
```


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```
      <Level DisplayName="Account Level 03" UniqueName="[Account].[Accounts].[Account Level
03]" Description="" DimensionUniqueName="[Account].[Accounts]" IsAllLevel="false"
LevelNumber="2" />
      <Level DisplayName="Account Level 04" UniqueName="[Account].[Accounts].[Account Level
04]" Description="" DimensionUniqueName="[Account].[Accounts]" IsAllLevel="false"
LevelNumber="3" />
      <Level DisplayName="Account Level 05" UniqueName="[Account].[Accounts].[Account Level
05]" Description="" DimensionUniqueName="[Account].[Accounts]" IsAllLevel="false"
LevelNumber="4" />
      <Level DisplayName="Account Level 06" UniqueName="[Account].[Accounts].[Account Level
06]" Description="" DimensionUniqueName="[Account].[Accounts]" IsAllLevel="false"
LevelNumber="5" />
     </Levels>
    </Dimension>
    <Dimension DisplayName="Geography.Country" UniqueName="[Geography].[Country]"
Description="" IsMeasureDimension="false" DefaultMemberName="[Geography].[Country].[All
Geographies]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="(All)" UniqueName="[Geography].[Country].[(All)]" Description=""
DimensionUniqueName="[Geography].[Country]" IsAllLevel="true" LevelNumber="0" />
      <Level DisplayName="Country" UniqueName="[Geography].[Country].[Country]"
Description="" DimensionUniqueName="[Geography].[Country]" IsAllLevel="false" LevelNumber="1"
/>
     </Levels>
    </Dimension>
    <Dimension DisplayName="Geography.Geography" UniqueName="[Geography].[Geography]"
Description="" IsMeasureDimension="false" DefaultMemberName="[Geography].[Geography].[All
Geographies]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="(All)" UniqueName="[Geography].[Geography].[(All)]" Description=""
DimensionUniqueName="[Geography].[Geography]" IsAllLevel="true" LevelNumber="0" />
      <Level DisplayName="Country" UniqueName="[Geography].[Geography].[Country]"
Description="" DimensionUniqueName="[Geography].[Geography]" IsAllLevel="false"
LevelNumber="1" />
      <Level DisplayName="State-Province" UniqueName="[Geography].[Geography].[State-
Province]" Description="" DimensionUniqueName="[Geography].[Geography]" IsAllLevel="false"
LevelNumber="2" />
      <Level DisplayName="City" UniqueName="[Geography].[Geography].[City]" Description=""
DimensionUniqueName="[Geography].[Geography]" IsAllLevel="false" LevelNumber="3" />
      <Level DisplayName="Postal Code" UniqueName="[Geography].[Geography].[Postal Code]"
Description="" DimensionUniqueName="[Geography].[Geography]" IsAllLevel="false"
LevelNumber="4" />
     </Levels>
    </Dimension>
    <Dimension DisplayName="Geography.Postal Code" UniqueName="[Geography].[Postal Code]"
Description="" IsMeasureDimension="false" DefaultMemberName="[Geography].[Postal Code].[All
Geographies]">
     <MeasureGroupNames />
     <Type>Unknown</Type>
     <Hierarchies />
     <Levels>
      <Level DisplayName="(All)" UniqueName="[Geography].[Postal Code].[(All)]"
Description="" DimensionUniqueName="[Geography].[Postal Code]" IsAllLevel="true"
LevelNumber="0" />
      <Level DisplayName="Postal Code" UniqueName="[Geography].[Postal Code].[Postal Code]"
Description="" DimensionUniqueName="[Geography].[Postal Code]" IsAllLevel="false"
LevelNumber="1" />
     </Levels>
    </Dimension>
    <Dimension DisplayName="Geography.State-Province" UniqueName="[Geography].[State-
Province]" Description="" IsMeasureDimension="false" DefaultMemberName="[Geography].[State-
Province].[All Geographies]">
     <MeasureGroupNames />
```


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```
      <Type>Unknown</Type>
      <Hierarchies />
      <Levels>
       <Level DisplayName="(All)" UniqueName="[Geography].[State-Province].[(All)]"
Description="" DimensionUniqueName="[Geography].[State-Province]" IsAllLevel="true"
LevelNumber="0" />
       <Level DisplayName="State-Province" UniqueName="[Geography].[State-Province].[State-
Province]" Description="" DimensionUniqueName="[Geography].[State-Province]"
IsAllLevel="false" LevelNumber="1" />
      </Levels>
     </Dimension>
    </GetDimensionsFromDataSourceResult>
   </GetDimensionsFromDataSourceResponse>
  </soap:Body>
</soap:Envelope>
```

4.2.4 QueryDimensionRootMembersFromDataSource

The protocol client calls **QueryDimensionRootMembers** to retrieve the root members from the "Country" level of the "Geography" **dimension**.

The protocol client creates and sends the following message (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <QueryDimensionRootMembers
xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <dataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1_.000" />
   <dimensionName>[Geography].[Country]</dimensionName>
  </QueryDimensionRootMembers>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <QueryDimensionRootMembersFromDataSourceResponse
xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <QueryDimensionRootMembersFromDataSourceResult>
    <Member Caption="All Geographies" UniqueName="[Geography].[Country].[All Geographies]"
LevelName="[Geography].[Country].[(All)]" DimensionName="Geography.Country" LevelDepth="0"
ChildCount="6" IsChildCountReal="false" IsAllLevel="true"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
   </QueryDimensionRootMembersFromDataSourceResult>
  </QueryDimensionRootMembersFromDataSourceResponse>
 </soap:Body>
</soap:Envelope>
```

4.2.5 QueryChildMembersFromDataSource

The protocol client calls **QueryChildMembers** to retrieve the **child** members from the "All Geographies" member of the "Country" level of the "Geography" **dimension**.

The protocol client creates and sends the following message (white space added for readability):

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```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <QueryChildMembers xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <dataSourceLocation ItemUrl="/PerformancePoint/Data Sources/1_.000" />
   <memberUniqueName>[Geography].[Country].[All Geographies]</memberUniqueName>
  </QueryChildMembers>
 </soap:Body>
</soap:Envelope>
```

The **server (2)** responds with the following (white space added for readability):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
 <soap:Body>
  <QueryChildMembersFromDataSourceResponse
xmlns="http://www.microsoft.com/performancepoint/scorecards">
   <QueryChildMembersFromDataSourceResult>
    <Member Caption="Australia" UniqueName="[Geography].[Country].&amp;[Australia]"
LevelName="[Geography].[Country].[Country]" DimensionName="Geography.Country" LevelDepth="1"
ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
    <Member Caption="Canada" UniqueName="[Geography].[Country].&amp;[Canada]"
LevelName="[Geography].[Country].[Country]" DimensionName="Geography.Country" LevelDepth="1"
ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
    <Member Caption="France" UniqueName="[Geography].[Country].&amp;[France]"
LevelName="[Geography].[Country].[Country]" DimensionName="Geography.Country" LevelDepth="1"
ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
    <Member Caption="Germany" UniqueName="[Geography].[Country].&amp;[Germany]"
LevelName="[Geography].[Country].[Country]" DimensionName="Geography.Country" LevelDepth="1"
ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
    <Member Caption="United Kingdom" UniqueName="[Geography].[Country].&amp;[United Kingdom]"
LevelName="[Geography].[Country].[Country]" DimensionName="Geography.Country" LevelDepth="1"
ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
    <Member Caption="United States" UniqueName="[Geography].[Country].&amp;[United States]"
LevelName="[Geography].[Country].[Country]" DimensionName="Geography.Country" LevelDepth="1"
ChildCount="0" IsChildCountReal="false" IsAllLevel="false"
DimensionUniqueName="[Geography].[Country]" MemberType="Regular" />
   </QueryChildMembersFromDataSourceResult>
  </QueryChildMembersFromDataSourceResponse>
 </soap:Body>
</soap:Envelope>
```


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5 Security

5.1 Security Considerations for Implementers

Secure Sockets Layer (SSL) is required to securely implement this protocol. The protocol exposes **data sources (1)** to potential tampering or data disclosure without SSL.

The security permissions for all FirstClassElement objects are based on the **list (1)** containing the object.

The security permissions for a TempReportView or Annotation are inherited from the parent FirstClassElement objects.

5.2 Index of Security Parameters

None.

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6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided in this appendix.

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:s1="http://microsoft.com/wsdl/types/"
xmlns:tns="http://www.microsoft.com/performancepoint/scorecards"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://www.microsoft.com/performancepoint/scorecards"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema xmlns:qdata="http://performancepoint.microsoft.com/OLAPQueryData"
xmlns:query="http://schemas.microsoft.com/performancepoint/2007/03/query"
attributeFormDefault="unqualified" elementFormDefault="qualified"
targetNamespace="http://www.microsoft.com/performancepoint/scorecards">
      <xs:import namespace="http://microsoft.com/wsdl/types/"/>
      <xs:import namespace="http://www.w3.org/2001/XMLSchema"/>
      <xs:element name="CreateDataSource">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:complexType name="DataSource">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:FirstClassElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="CustomData" type="xs:string"/>
              <xs:element minOccurs="0" maxOccurs="1" name="CustomTimeIntelligenceSettings"
type="xs:string"/>
              <xs:element minOccurs="0" maxOccurs="1" name="DataTableMapping"
type="tns:DataTableMapping"/>
            </xs:sequence>
            <xs:attribute name="SourceName" type="xs:string"/>
            <xs:attribute name="ServerName" type="xs:string"/>
            <xs:attribute name="DatabaseName" type="xs:string"/>
            <xs:attribute name="CubeName" type="xs:string"/>
            <xs:attribute name="CubeDisplayName" type="xs:string"/>
            <xs:attribute name="FormattingDimensionName" type="xs:string"/>
            <xs:attribute name="FormattingDimensionDisplayName" type="xs:string"/>
            <xs:attribute name="FormattingDimensionType" type="tns:DimensionTypeEnum"
use="required"/>
            <xs:attribute name="ConnectionString" type="xs:string"/>
            <xs:attribute name="Roles" type="xs:string"/>
            <xs:attribute name="UseConnectionString" type="xs:boolean" use="required"/>
            <xs:attribute name="ConnectionContext" type="tns:ConnectionContext"
use="required"/>
            <xs:attribute name="PassUserNameAsAdomdCustomData" type="xs:boolean"
use="required"/>
            <xs:attribute name="ReadOnly" type="xs:boolean" use="required"/>
            <xs:attribute name="MinutesToCache" type="xs:int" use="required"/>
            <xs:attribute name="ServerMajorVersion" type="xs:int" use="required"/>
            <xs:attribute name="SubTypeId" type="xs:string"/>
            <xs:attribute name="TargetApplicationId" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="FirstClassElement" abstract="true">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:Element">
            <xs:sequence>
```


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```
              <xs:element minOccurs="0" maxOccurs="1" name="Version"
type="tns:ElementVersion"/>

              <xs:element minOccurs="0" maxOccurs="1" name="Location"
type="tns:RepositoryLocation"/>
            </xs:sequence>
            <xs:attribute name="Folder" type="xs:string"/>
            <xs:attribute name="CreatedBy" type="xs:string"/>
            <xs:attribute name="CreatedDate" type="xs:dateTime" use="required"/>
            <xs:attribute name="ContentType" type="tns:FCOContentType" use="required"/>
            <xs:attribute name="LastModified" type="xs:dateTime" use="required"/>
            <xs:attribute name="ModifiedBy" type="xs:string"/>
            <xs:attribute name="CheckedOutTo" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="Element" abstract="true">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="Properties"
type="tns:ArrayOfBpmProperty"/>
          <xs:element minOccurs="0" maxOccurs="1" name="Comments" type="tns:ArrayOfComment"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ArrayOfBpmProperty">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="BpmProperty" nillable="true"
type="tns:BpmProperty"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="BpmProperty" abstract="true">
        <xs:attribute name="UniqueName" type="xs:string"/>
        <xs:attribute name="DisplayName" type="xs:string"/>
        <xs:attribute name="Description" type="xs:string"/>
        <xs:attribute name="Required" type="xs:boolean" use="required"/>
        <xs:attribute name="Visible" type="xs:boolean" use="required"/>
      </xs:complexType>
      <xs:complexType name="BpmPropertyUser">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:BpmProperty">
            <xs:attribute name="Login" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="BpmPropertyLinkBase">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:BpmProperty">
            <xs:attribute name="Hyperlink" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="BpmPropertyHyperlink">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:BpmPropertyLinkBase"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="BpmPropertyHyperlink2">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:BpmPropertyLinkBase"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="BpmPropertyDate">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:BpmProperty">
            <xs:attribute name="Date" type="xs:dateTime" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="BpmPropertyLongText">
        <xs:complexContent mixed="false">
```


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```
            <xs:extension base="tns:BpmProperty">
              <xs:attribute name="Text" type="xs:string"/>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="BpmPropertyText">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:BpmProperty">
              <xs:attribute name="Text" type="xs:string"/>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="BpmPropertyDecimal">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:BpmProperty">
              <xs:attribute name="Decimal" type="xs:decimal" use="required"/>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="BpmPropertyList">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:BpmProperty">
              <xs:sequence>
                <xs:element minOccurs="0" maxOccurs="1" name="ListItems"
type="tns:ArrayOfBpmPropertyListItem"/>
              </xs:sequence>
              <xs:attribute name="SelectedIndex" type="xs:int" use="required"/>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="ArrayOfBpmPropertyListItem">
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="BpmPropertyListItem"
nillable="true" type="tns:BpmPropertyListItem"/>
          </xs:sequence>
        </xs:complexType>
        <xs:complexType name="BpmPropertyListItem">
          <xs:attribute name="Name" type="xs:string"/>
          <xs:attribute name="Value" type="xs:string"/>
        </xs:complexType>
        <xs:complexType name="BpmPropertyBool">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:BpmProperty">
              <xs:attribute name="Value" type="xs:boolean" use="required"/>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="ArrayOfComment">
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="Comment" nillable="true"
type="tns:Comment"/>
          </xs:sequence>
        </xs:complexType>
        <xs:complexType name="Comment">
          <xs:attribute name="Guid" type="s1:guid" use="required"/>
          <xs:attribute name="CreatedBy" type="xs:string"/>
          <xs:attribute name="CreatedDate" type="xs:dateTime" use="required"/>
          <xs:attribute name="Message" type="xs:string"/>
        </xs:complexType>
        <xs:complexType name="ElementVersion">
          <xs:attribute name="Major" type="xs:int" use="required"/>
          <xs:attribute name="Minor" type="xs:int" use="required"/>
        </xs:complexType>
        <xs:simpleType name="FCOContentType">
          <xs:list>
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="None"/>
                <xs:enumeration value="PpsDashboard"/>
```


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```
              <xs:enumeration value="PpsScorecard"/>
              <xs:enumeration value="PpsKpi"/>
              <xs:enumeration value="PpsReportView"/>
              <xs:enumeration value="PpsIndicator"/>
              <xs:enumeration value="PpsDataSource"/>
              <xs:enumeration value="PpsFilter"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:list>
      </xs:simpleType>
      <xs:complexType name="DataTableMapping">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="ColumnMappings"
type="tns:ArrayOfDataColumnMapping"/>
          <xs:element minOccurs="0" maxOccurs="1" name="MasterTimeColumn"
type="tns:DataColumnMapping"/>
        </xs:sequence>
        <xs:attribute name="DateAggregationType" type="tns:DateAggregationTypes"
use="required"/>
        <xs:attribute name="CalendarStartMonth" type="xs:int" use="required"/>
      </xs:complexType>
      <xs:complexType name="ArrayOfDataColumnMapping">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="DataColumnMapping"
nillable="true" type="tns:DataColumnMapping"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="DataColumnMapping">
        <xs:attribute name="UniqueName" type="xs:string"/>
        <xs:attribute name="KeyColumnName" type="xs:string"/>
        <xs:attribute name="SourceColumnName" type="xs:string"/>
        <xs:attribute name="FriendlyColumnName" type="xs:string"/>
        <xs:attribute name="ColumnType" type="tns:MappedColumnTypes" use="required"/>
        <xs:attribute name="FactAggregation" type="tns:FactAggregations" use="required"/>
        <xs:attribute name="ColumnDataType" type="tns:MappedColumnDataTypes" use="required"/>
      </xs:complexType>
      <xs:simpleType name="MappedColumnTypes">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Ignore"/>
          <xs:enumeration value="Fact"/>
          <xs:enumeration value="Dimension"/>
          <xs:enumeration value="TimeDimension"/>
          <xs:enumeration value="Key"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="FactAggregations">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Average"/>
          <xs:enumeration value="Count"/>
          <xs:enumeration value="Max"/>
          <xs:enumeration value="Min"/>
          <xs:enumeration value="None"/>
          <xs:enumeration value="StDev"/>
          <xs:enumeration value="Sum"/>
          <xs:enumeration value="Variance"/>
          <xs:enumeration value="FirstOccurance"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="MappedColumnDataTypes">
        <xs:restriction base="xs:string">
          <xs:enumeration value="NotSupported"/>
          <xs:enumeration value="Number"/>
          <xs:enumeration value="String"/>
          <xs:enumeration value="DateTime"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="DateAggregationTypes">
        <xs:list>
          <xs:simpleType>
```


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```
            <xs:restriction base="xs:string">
              <xs:enumeration value="None"/>
              <xs:enumeration value="Second"/>
              <xs:enumeration value="Minute"/>
              <xs:enumeration value="Hour"/>
              <xs:enumeration value="Day"/>
              <xs:enumeration value="Week"/>
              <xs:enumeration value="Month"/>
              <xs:enumeration value="Quarter"/>
              <xs:enumeration value="Year"/>
              <xs:enumeration value="Semester"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:list>
      </xs:simpleType>
      <xs:simpleType name="DimensionTypeEnum">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Accounts"/>
          <xs:enumeration value="BillOfMaterials"/>
          <xs:enumeration value="Channel"/>
          <xs:enumeration value="Currency"/>
          <xs:enumeration value="Customers"/>
          <xs:enumeration value="Geography"/>
          <xs:enumeration value="Measure"/>
          <xs:enumeration value="Organization"/>
          <xs:enumeration value="Other"/>
          <xs:enumeration value="Products"/>
          <xs:enumeration value="Promotion"/>
          <xs:enumeration value="Quantitative"/>
          <xs:enumeration value="Rates"/>
          <xs:enumeration value="Scenario"/>
          <xs:enumeration value="Time"/>
          <xs:enumeration value="Unknown"/>
          <xs:enumeration value="Utility"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="ConnectionContext">
        <xs:restriction base="xs:string">
          <xs:enumeration value="ConnectAsUser"/>
          <xs:enumeration value="ConnectAsSharedUser"/>
          <xs:enumeration value="SecureStoreCredentials"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:element name="CreateDataSourceResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="CreateDataSourceResult"
type="tns:DataSource"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="UpdateDataSource">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="UpdateDataSourceResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="UpdateDataSourceResult"
type="tns:DataSource"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetDataSource">
        <xs:complexType>
          <xs:sequence>
```


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```
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetDataSourceResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="GetDataSourceResult"
type="tns:DataSource"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="DeleteDataSource">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="DeleteDataSourceResponse">
        <xs:complexType/>
      </xs:element>
      <xs:element name="CreateKpi">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="kpi" type="tns:Kpi"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:complexType name="Kpi">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:FirstClassElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="Actuals"
type="tns:ArrayOfKpiMeasure"/>
              <xs:element minOccurs="0" maxOccurs="1" name="Targets"
type="tns:ArrayOfTarget"/>
            </xs:sequence>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="ArrayOfKpiMeasure">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="KpiMeasure" nillable="true"
type="tns:KpiMeasure"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="KpiMeasure">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:SecondClassElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="OwnerKpiLocation"
type="tns:RepositoryLocation"/>
              <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
              <xs:element minOccurs="0" maxOccurs="1" name="DefaultDimensionSettings"
type="tns:ArrayOfDefaultDimensionSetting"/>
              <xs:element minOccurs="0" maxOccurs="1" name="OverrideFormatProperties"
type="tns:KpiNumberFormatProperties"/>
              <xs:element minOccurs="0" maxOccurs="1" name="CalcFormulaInfo"
type="tns:CalculatedFormulaInfo"/>
            </xs:sequence>
            <xs:attribute name="AggregateBy" type="tns:AggregateTypeEnum" use="required"/>
            <xs:attribute name="DisableScorecardFilters" type="xs:boolean" use="required"/>
            <xs:attribute name="ModelCurrent" type="xs:decimal" use="required"/>
            <xs:attribute name="Pattern" type="tns:KpiPattern" use="required"/>
```


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```
            <xs:attribute name="CurrentFormula" type="xs:string"/>
            <xs:attribute name="IsCustomCurrentFormula" type="xs:boolean" use="required"/>
            <xs:attribute name="OdbcQuery" type="xs:string"/>
            <xs:attribute name="OverrideHoverText" type="xs:string"/>
            <xs:attribute name="TimeFilterFormula" type="xs:string"/>
            <xs:attribute name="ValueSource" type="tns:ValueSources" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="SecondClassElement" abstract="true">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:Element">
            <xs:attribute name="Guid" type="s1:guid" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="ArrayOfDefaultDimensionSetting">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="DefaultDimensionSetting"
nillable="true" type="tns:DefaultDimensionSetting"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="DefaultDimensionSetting">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:Dimension">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="unbounded" name="Members"
type="tns:Member"/>
            </xs:sequence>
            <xs:attribute name="IsVisible" type="xs:boolean" use="required"/>
            <xs:attribute name="ShowAsSlider" type="xs:boolean" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="Dimension">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:NameInfo">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="MeasureGroupNames"
type="tns:ArrayOfString"/>
              <xs:element minOccurs="1" maxOccurs="1" name="Type"
type="tns:DimensionTypeEnum"/>
              <xs:element minOccurs="0" maxOccurs="1" name="Hierarchies"
type="tns:ArrayOfHierarchy"/>
              <xs:element minOccurs="0" maxOccurs="1" name="Levels" type="tns:ArrayOfLevel"/>
            </xs:sequence>
            <xs:attribute name="IsMeasureDimension" type="xs:boolean" use="required"/>
            <xs:attribute name="DefaultMemberName" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="NameInfo">
        <xs:attribute name="DisplayName" type="xs:string"/>
        <xs:attribute name="UniqueName" type="xs:string"/>
        <xs:attribute name="Description" type="xs:string"/>
      </xs:complexType>
      <xs:complexType name="Level">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:NameInfo">
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            <xs:attribute name="HierarchyUniqueName" type="xs:string"/>
            <xs:attribute name="IsAllLevel" type="xs:boolean" use="required"/>
            <xs:attribute name="LevelNumber" type="xs:int" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="Hierarchy">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:NameInfo">
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```
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            </xs:sequence>
            <xs:attribute name="DefaultMemberName" type="xs:string"/>
            <xs:attribute name="DimensionUniqueName" type="xs:string"/>
            <xs:attribute name="DisplayFolder" type="xs:string"/>
            <xs:attribute name="HierarchyOrigin" type="tns:HierarchyOrigin" use="required"/>
          </xs:extension>
        </xs:complexContent>
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type="tns:Level"/>
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      <xs:simpleType name="HierarchyOrigin">
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          <xs:enumeration value="AttributeHierarchy"/>
          <xs:enumeration value="ParentChildHierarchy"/>
          <xs:enumeration value="UserHierarchy"/>
        </xs:restriction>
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type="xs:string"/>
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type="tns:Hierarchy"/>
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        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="MemberOperation"
type="tns:MemberOperation"/>
        </xs:sequence>
        <xs:attribute name="Caption" type="xs:string"/>
        <xs:attribute name="UniqueName" type="xs:string"/>
        <xs:attribute name="HierarchyPath" type="xs:string"/>
        <xs:attribute name="LevelName" type="xs:string"/>
        <xs:attribute name="DimensionName" type="xs:string"/>
        <xs:attribute name="LevelDepth" type="xs:int" use="required"/>
        <xs:attribute name="ChildCount" type="xs:long" use="required"/>
        <xs:attribute name="IsChildCountReal" type="xs:boolean" use="required"/>
        <xs:attribute name="IsAllLevel" type="xs:boolean" use="required"/>
        <xs:attribute name="DimensionUniqueName" type="xs:string"/>
        <xs:attribute name="MemberType" type="tns:MemberType" use="required"/>
      </xs:complexType>
      <xs:complexType name="MemberOperation" abstract="true"/>
      <xs:complexType name="MemberOperationLeafDescendants">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:MemberOperation"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="MemberOperationDescendants">
        <xs:complexContent mixed="false">
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            <xs:attribute name="LevelDisplayName" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="MemberOperationHide">
        <xs:complexContent mixed="false">
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            <xs:extension base="tns:MemberOperation"/>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="MemberOperationDrillUp">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:MemberOperation"/>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="MemberOperationChildren">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:MemberOperation"/>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="MemberOperationAllDescendants">
          <xs:complexContent mixed="false">
            <xs:extension base="tns:MemberOperation"/>
          </xs:complexContent>
        </xs:complexType>
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          <xs:restriction base="xs:string">
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            <xs:enumeration value="Operation"/>
            <xs:enumeration value="Default"/>
            <xs:enumeration value="Formula"/>
          </xs:restriction>
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        <xs:complexType name="KpiNumberFormatProperties">
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          <xs:attribute name="CurrencySymbol" type="xs:string"/>
          <xs:attribute name="DecimalPlaces" type="xs:int" use="required"/>
          <xs:attribute name="NegativeSymbol" type="tns:FormatNegativeSymbol" use="required"/>
          <xs:attribute name="ShowZeroAs" type="xs:string"/>
          <xs:attribute name="UseThousandsSeparator" type="xs:boolean" use="required"/>
          <xs:attribute name="AdditionalTextLeft" type="xs:string"/>
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            <xs:enumeration value="Number"/>
            <xs:enumeration value="Currency"/>
            <xs:enumeration value="Percentage"/>
            <xs:enumeration value="Unknown"/>
          </xs:restriction>
        </xs:simpleType>
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            <xs:enumeration value="NegativeSign"/>
            <xs:enumeration value="Parenthesis"/>
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        </xs:simpleType>
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type="tns:ArrayOfAliasInfo"/>
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          <xs:attribute name="Formula" type="xs:string"/>
        </xs:complexType>
        <xs:complexType name="ArrayOfAliasInfo">
          <xs:sequence>
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type="tns:AliasInfo"/>
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        </xs:complexType>
        <xs:complexType name="AliasInfo">
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="AliasCalculationInfo"
type="tns:KpiMeasure"/>
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        </xs:sequence>
        <xs:attribute name="AliasName" type="xs:string"/>
      </xs:complexType>
      <xs:simpleType name="AggregateTypeEnum">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Default"/>
          <xs:enumeration value="Sum"/>
          <xs:enumeration value="Minimum"/>
          <xs:enumeration value="Maximum"/>
          <xs:enumeration value="Count"/>
          <xs:enumeration value="Average"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="KpiPattern">
        <xs:restriction base="xs:string">
          <xs:enumeration value="IncreasingIsBetter"/>
          <xs:enumeration value="DecreasingIsBetter"/>
          <xs:enumeration value="CloserToTargetIsBetter"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="ValueSources">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Default"/>
          <xs:enumeration value="NoValue"/>
          <xs:enumeration value="SourceData"/>
          <xs:enumeration value="Text"/>
          <xs:enumeration value="AverageRollup"/>
          <xs:enumeration value="MinRollup"/>
          <xs:enumeration value="MaxRollup"/>
          <xs:enumeration value="TotalRollup"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:complexType name="Target">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:KpiMeasure">
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type="tns:RepositoryLocation"/>
              <xs:element minOccurs="0" maxOccurs="1" name="StatedScore"
type="tns:KpiMeasure"/>
              <xs:element minOccurs="0" maxOccurs="1" name="Banding" type="tns:Banding"/>
              <xs:element minOccurs="1" maxOccurs="1" name="RelatedActualId" type="s1:guid"/>
            </xs:sequence>
            <xs:attribute name="IsRollupScore" type="xs:boolean" use="required"/>
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        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="Banding">
        <xs:sequence>
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type="tns:ArrayOfDecimal"/>
        </xs:sequence>
        <xs:attribute name="Type" type="tns:BandType" use="required"/>
        <xs:attribute name="BandValue" type="xs:string"/>
        <xs:attribute name="ActualWorst" type="xs:decimal" use="required"/>
        <xs:attribute name="SpreadMinimum" type="xs:decimal" use="required"/>
        <xs:attribute name="SpreadMaximum" type="xs:decimal" use="required"/>
      </xs:complexType>
      <xs:complexType name="ArrayOfDecimal">
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        </xs:sequence>
      </xs:complexType>
      <xs:simpleType name="BandType">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Normalized"/>
          <xs:enumeration value="Actual"/>
          <xs:enumeration value="StatedScore"/>
        </xs:restriction>
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      </xs:simpleType>
      <xs:complexType name="ArrayOfTarget">
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type="tns:Target"/>
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        </xs:complexType>
      </xs:element>
      <xs:element name="UpdateKpi">
        <xs:complexType>
          <xs:sequence>
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        <xs:complexType>
          <xs:sequence>
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type="tns:RepositoryLocation"/>
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        </xs:complexType>
      </xs:element>
      <xs:element name="GetKpisFromScorecardResponse">
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type="tns:ArrayOfKpi"/>
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type="tns:Kpi"/>
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      </xs:complexType>
      <xs:element name="GetKpi">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
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        </xs:complexType>
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      <xs:element name="GetKpiResponse">
        <xs:complexType>
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      <xs:element name="DeleteKpi">
        <xs:complexType>
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            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
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        </xs:complexType>
      </xs:element>
      <xs:element name="DeleteKpiResponse">
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      <xs:element name="CreateScorecard">
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          </xs:sequence>
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      <xs:complexType name="Scorecard">
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          <xs:extension base="tns:FirstClassElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="ConfiguredViews"
type="tns:ArrayOfConfiguredView"/>
              <xs:element minOccurs="0" maxOccurs="1" name="EndPoints"
type="tns:ArrayOfEndPoint"/>
              <xs:element minOccurs="0" maxOccurs="1" name="BeginPoints"
type="tns:ArrayOfParameterDefinition"/>
            </xs:sequence>
            <xs:attribute name="RendererClassName" type="xs:string"/>
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      <xs:complexType name="ArrayOfConfiguredView">
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type="tns:StatusFilter"/>
              <xs:element minOccurs="0" maxOccurs="1" name="ToolbarOptions"
type="tns:ToolbarOptions"/>
              <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
              <xs:element minOccurs="0" maxOccurs="1" name="GridViewDefinition"
type="tns:GridViewDefinition"/>
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            <xs:attribute name="AllowSort" type="xs:boolean" use="required"/>
            <xs:attribute name="AllowAnnotations" type="xs:boolean" use="required"/>
            <xs:attribute name="EmptyRowsFilterMode" type="tns:ScorecardEmptyRowsFilterMode"
use="required"/>
            <xs:attribute name="AllowShowDetails" type="xs:boolean" use="required"/>
            <xs:attribute name="EnableTextwrap" type="xs:boolean" use="required"/>
            <xs:attribute name="AllowDynamicRowMemberExpansion" type="xs:boolean"
use="required"/>
            <xs:attribute name="AllowDynamicColumnMemberExpansion" type="xs:boolean"
use="required"/>
            <xs:attribute name="AllowRowDrill" type="xs:boolean" use="required"/>
            <xs:attribute name="AllowColumnDrill" type="xs:boolean" use="required"/>
            <xs:attribute name="AlwaysShowAnnotationCellFlags" type="xs:boolean"
use="required"/>
            <xs:attribute name="ExpandToFitWidth" type="xs:boolean" use="required"/>
            <xs:attribute name="HideScorecard" type="xs:boolean" use="required"/>
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            <xs:attribute name="ShowStatusFiltersByDefault" type="xs:boolean"
use="required"/>
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      </xs:complexType>
      <xs:complexType name="StatusFilter">
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        <xs:attribute name="BandIndex" type="xs:int" use="required"/>
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      <xs:complexType name="ToolbarOptions">
        <xs:attribute name="ShowInlineText" type="xs:boolean" use="required"/>
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        <xs:attribute name="ShowStatusFilter" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowToolTips" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowCollapse" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowMode" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowExpand" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowToolbarItemsLabel" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowDefaultRollup" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowWorstChildRollup" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowIndicatorCount" type="xs:boolean" use="required"/>
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type="tns:GridFormatInfo"/>
          <xs:element minOccurs="0" maxOccurs="1" name="RootRowHeader"
type="tns:GridHeaderItem"/>
          <xs:element minOccurs="0" maxOccurs="1" name="RootColumnHeader"
type="tns:GridHeaderItem"/>
          <xs:element minOccurs="1" maxOccurs="1" name="DefaultRollupIndicatorId"
type="s1:guid"/>
          <xs:element minOccurs="0" maxOccurs="1" name="DefaultRollupIndicatorLocation"
type="tns:RepositoryLocation"/>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="PreQueryTransforms"
type="tns:GridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="PostQueryTransforms"
type="tns:GridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="PreRenderTransforms"
type="tns:GridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="PerUserTransforms"
type="tns:GridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="1" name="CellBorderColor"
type="tns:GridColor"/>
        </xs:sequence>
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        <xs:attribute name="InvalidCell" type="xs:string"/>
        <xs:attribute name="ShowGridLines" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowHiddenHeaders" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowMetricHeaders" type="xs:boolean" use="required"/>
        <xs:attribute name="ShowPlusMinus" type="xs:boolean" use="required"/>
      </xs:complexType>
      <xs:complexType name="GridFormatInfo">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="FontInfo" type="tns:GridFontInfo"/>
          <xs:element minOccurs="0" maxOccurs="1" name="ForeColor" type="tns:GridColor"/>
          <xs:element minOccurs="0" maxOccurs="1" name="BackColor" type="tns:GridColor"/>
        </xs:sequence>
        <xs:attribute name="TextWrap" type="tns:Trinary" use="required"/>
        <xs:attribute name="VerticalAlignment" type="tns:VerticalAlignments" use="required"/>
        <xs:attribute name="HorizontalAlignment" type="tns:HorizontalAlignments"
use="required"/>
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      <xs:complexType name="GridFontInfo">
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        <xs:attribute name="Bold" type="tns:Trinary" use="required"/>
        <xs:attribute name="Italic" type="tns:Trinary" use="required"/>
        <xs:attribute name="Underline" type="tns:Trinary" use="required"/>
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        <xs:attribute name="Strikeout" type="tns:Trinary" use="required"/>
      </xs:complexType>
      <xs:simpleType name="Trinary">
        <xs:restriction base="xs:string">
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          <xs:enumeration value="True"/>
        </xs:restriction>
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        <xs:attribute name="R" type="xs:unsignedByte" use="required"/>
        <xs:attribute name="G" type="xs:unsignedByte" use="required"/>
        <xs:attribute name="B" type="xs:unsignedByte" use="required"/>
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          <xs:enumeration value="Top"/>
          <xs:enumeration value="Middle"/>
          <xs:enumeration value="Bottom"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="HorizontalAlignments">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Undefined"/>
          <xs:enumeration value="Left"/>
          <xs:enumeration value="Center"/>
          <xs:enumeration value="Right"/>
        </xs:restriction>
      </xs:simpleType>
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        <xs:sequence>
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type="tns:GridFormatInfo"/>
          <xs:element minOccurs="0" maxOccurs="1" name="CellFormatInfo"
type="tns:GridFormatInfo"/>
          <xs:element minOccurs="0" maxOccurs="1" name="Children"
type="tns:ArrayOfGridHeaderItem"/>
          <xs:element minOccurs="0" maxOccurs="1" name="SerializeTag"/>
          <xs:element minOccurs="0" maxOccurs="1" name="DimensionMember" type="tns:Member"/>
          <xs:element minOccurs="0" maxOccurs="1" name="OverrideIndicatorLocation"
type="tns:RepositoryLocation"/>
          <xs:element minOccurs="0" maxOccurs="1" name="Banding" type="tns:Banding"/>
          <xs:element minOccurs="0" maxOccurs="1" name="LinkedKpiLocation"
type="tns:RepositoryLocation"/>
          <xs:element minOccurs="0" maxOccurs="1" name="BpmProperties"
type="tns:ArrayOfBpmProperty"/>
          <xs:element minOccurs="0" maxOccurs="1" name="TargetSettings"
type="tns:GridTargetSettings"/>
          <xs:element minOccurs="0" maxOccurs="1" name="TrendIndicatorLocation"
type="tns:RepositoryLocation"/>
        </xs:sequence>
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        <xs:attribute name="Guid" type="s1:guid" use="required"/>
        <xs:attribute name="DefinitionGuid" type="s1:guid" use="required"/>
        <xs:attribute name="DisplayText" type="xs:string"/>
        <xs:attribute name="DimensionName" type="xs:string"/>
        <xs:attribute name="DimensionValue" type="xs:string"/>
        <xs:attribute name="HeaderType" type="tns:ScorecardNodeTypes" use="required"/>
        <xs:attribute name="GroupId" type="xs:int" use="required"/>
        <xs:attribute name="Depth" type="xs:int" use="required"/>
        <xs:attribute name="DescendantSpan" type="xs:int" use="required"/>
        <xs:attribute name="LeafSpan" type="xs:int" use="required"/>
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        <xs:attribute name="IsDynamicCellExpansionEnabled" type="xs:boolean" use="required"/>
        <xs:attribute name="IsDrillEnabled" type="xs:boolean" use="required"/>
        <xs:attribute name="IsDrillDownDisabled" type="xs:boolean" use="required"/>
        <xs:attribute name="IsDrillUpDisabled" type="xs:boolean" use="required"/>
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        <xs:attribute name="IsPathHidden" type="xs:boolean" use="required"/>
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        <xs:attribute name="CustomSetFormula" type="xs:string"/>
        <xs:attribute name="IsNamedSetInError" type="xs:boolean" use="required"/>
        <xs:attribute name="IsNamedSetEmpty" type="xs:boolean" use="required"/>
        <xs:attribute name="NamedSetType" type="tns:ScorecardNamedSetType" use="required"/>
        <xs:attribute name="UseLinkedElementDisplayText" type="xs:boolean" use="required"/>
        <xs:attribute name="Hyperlink" type="xs:string"/>
        <xs:attribute name="ShowHyperlinkInNewWindow" type="xs:boolean" use="required"/>
        <xs:attribute name="IsHierarchyHeader" type="xs:boolean" use="required"/>
        <xs:attribute name="IsColumnHeader" type="xs:boolean" use="required"/>
        <xs:attribute name="AppendFilterInfoToHyperlink" type="xs:boolean" use="required"/>
        <xs:attribute name="Weight" type="xs:decimal" use="required"/>
        <xs:attribute name="KpiTargetName" type="xs:string"/>
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use="required"/>
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type="tns:GridVarianceSettings"/>
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          <xs:element minOccurs="1" maxOccurs="1" name="Position"
type="tns:DataValuePosition"/>
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type="tns:DataValuePosition"/>
          <xs:element minOccurs="0" maxOccurs="1" name="ScoreSettings"
type="tns:GridScoreSettings"/>
          <xs:element minOccurs="0" maxOccurs="1" name="IndicatorSettings"
type="tns:GridIndicatorSettings"/>
        </xs:sequence>
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        <xs:attribute name="ShowActualAsTarget" type="xs:boolean" use="required"/>
        <xs:attribute name="IgnoreScoreFilter" type="xs:boolean" use="required"/>
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        <xs:attribute name="DisplayType" type="tns:VarianceDisplayType" use="required"/>
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        <xs:attribute name="Position" type="tns:DataValuePosition" use="required"/>
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      <xs:simpleType name="VarianceType">
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          <xs:enumeration value="VarianceToBestTarget"/>
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      </xs:simpleType>
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          <xs:enumeration value="ShowInvertedPercent"/>
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      </xs:simpleType>
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        <xs:restriction base="xs:string">
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          <xs:enumeration value="Right"/>
          <xs:enumeration value="NotDisplayed"/>
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```
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        <xs:attribute name="ScoreType" type="tns:ScoreTypes" use="required"/>
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        <xs:attribute name="Position" type="tns:DataValuePosition" use="required"/>
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        <xs:attribute name="ShowBackColor" type="xs:boolean" use="required"/>
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          <xs:enumeration value="Center"/>
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              <xs:enumeration value="KpiActual"/>
              <xs:enumeration value="KpiTarget"/>
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              <xs:enumeration value="DocumentLinks"/>
              <xs:enumeration value="NamedSet"/>
              <xs:enumeration value="Aggregate"/>
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        </xs:list>
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              <xs:enumeration value="TimeFormula"/>
            </xs:restriction>
          </xs:simpleType>
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```
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          <xs:enumeration value="Sum"/>
          <xs:enumeration value="Average"/>
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        </xs:sequence>
        <xs:attribute name="Id" type="xs:string"/>
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          <xs:element minOccurs="1" maxOccurs="1" name="double" type="xs:double"/>
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type="xs:string"/>
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nillable="true" type="tns:ArrayOfMemberTransform"/>
          <xs:element minOccurs="1" maxOccurs="1" name="guid" type="s1:guid"/>
          <xs:element minOccurs="1" maxOccurs="1" name="ArrayOfString" nillable="true"
type="tns:ArrayOfString"/>
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type="tns:ArrayOfMember"/>
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          <xs:element minOccurs="1" maxOccurs="1" name="Type"
type="tns:MemberTransformType"/>
          <xs:element minOccurs="1" maxOccurs="1" name="Operation"
type="tns:MemberTransformOperation"/>
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        </xs:sequence>
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      <xs:simpleType name="MemberTransformType">
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        </xs:restriction>
      </xs:simpleType>
      <xs:simpleType name="MemberTransformOperation">
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          <xs:enumeration value="DrillUp"/>
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type="tns:Member"/>
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        </xs:restriction>
      </xs:simpleType>
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type="tns:EndPoint"/>
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        <xs:attribute name="DisplayName" type="xs:string"/>
        <xs:attribute name="AcceptsMultipleFilterLinks" type="xs:boolean" use="required"/>
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                <xs:any minOccurs="1" namespace="urn:schemas-microsoft-com:xml-diffgram-v1"
processContents="lax"/>
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type="xs:string"/>
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type="tns:BeginPointEmitterType"/>
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          <xs:element minOccurs="0" maxOccurs="1" name="ParentKeyColumn" type="xs:string"/>
          <xs:element minOccurs="0" maxOccurs="1" name="DisplayColumn" type="xs:string"/>
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type="xs:string"/>
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          <xs:enumeration value="ConditionalVisibilityEmitter"/>
          <xs:enumeration value="ParameterEmitter"/>
        </xs:restriction>
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type="tns:Scorecard"/>
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        </xs:complexType>
      </xs:element>
      <xs:element name="UpdateScorecard">
        <xs:complexType>
          <xs:sequence>
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type="tns:Scorecard"/>
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      <xs:element name="GetScorecard">
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type="tns:RepositoryLocation"/>
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        </xs:complexType>
      </xs:element>
      <xs:element name="DeleteScorecard">
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type="tns:RepositoryLocation"/>
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          <xs:extension base="tns:FirstClassElement">
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              <xs:element minOccurs="0" maxOccurs="1" name="BeginPoints"
type="tns:ArrayOfParameterDefinition"/>
              <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
              <xs:element minOccurs="0" maxOccurs="1" name="CustomData" type="xs:string"/>
              <xs:element minOccurs="0" maxOccurs="1" name="EndPoints"
type="tns:ArrayOfEndPoint"/>
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            <xs:attribute name="SelectionMode" type="tns:FilterSelectionMode"
use="required"/>
            <xs:attribute name="Visualization" type="xs:string"/>
            <xs:attribute name="RendererClassName" type="xs:string"/>
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type="tns:Filter"/>
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        </xs:complexType>
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          <xs:sequence>
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        </xs:complexType>
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      <xs:element name="GetFilter">
        <xs:complexType>
          <xs:sequence>
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type="tns:RepositoryLocation"/>
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type="tns:Filter"/>
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          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
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        </xs:complexType>
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      <xs:element name="DeleteFilterResponse">
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      </xs:element>
      <xs:element name="CreateIndicator">
        <xs:complexType>
          <xs:sequence>
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type="tns:IndicatorBand"/>
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type="tns:ArrayOfIndicatorBand"/>
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          <xs:enumeration value="Centered"/>
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      <xs:element name="CreateIndicatorResponse">
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type="tns:Indicator"/>
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      <xs:element name="UpdateIndicator">
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type="tns:Indicator"/>
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      <xs:element name="GetIndicator">
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type="tns:RepositoryLocation"/>
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type="tns:Indicator"/>
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      <xs:element name="DeleteIndicator">
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      <xs:element name="DeleteIndicatorResponse">
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      <xs:element name="CreateReportView">
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type="tns:ArrayOfEndPoint"/>
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type="tns:ArrayOfParameterDefinition"/>
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            <xs:attribute name="RendererClassName" type="xs:string"/>
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type="tns:ReportView"/>
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      <xs:element name="UpdateReportView">
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            <xs:element minOccurs="0" maxOccurs="1" name="UpdateReportViewResult"
type="tns:ReportView"/>
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      <xs:element name="GetReportView">
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type="tns:ReportView"/>
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type="tns:RepositoryLocation"/>
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type="tns:RepositoryLocation"/>
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type="tns:ReportView"/>
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          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="dataSourceLocation"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
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```
      <xs:element name="QueryNamedSetsResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="QueryNamedSetsResult"
type="tns:ArrayOfNamedSet"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="QueryNamedSetsFromDataSource">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="QueryNamedSetsFromDataSourceResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="QueryNamedSetsFromDataSourceResult"
type="tns:ArrayOfNamedSet"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetAnnotationSetting">
        <xs:complexType/>
      </xs:element>
      <xs:complexType name="AnnotationSetting">
        <xs:attribute name="IsAnnotationEnabled" type="xs:boolean" use="required"/>
        <xs:attribute name="IsAnnotationEnabledDefault" type="xs:boolean" use="required"/>
        <xs:attribute name="IsDeletionByAuthorEnabled" type="xs:boolean" use="required"/>
        <xs:attribute name="IsDeletionByAuthorEnabledDefault" type="xs:boolean"
use="required"/>
        <xs:attribute name="MaxAnnotationAllowed" type="xs:int" use="required"/>
      </xs:complexType>
      <xs:element name="GetAnnotationSettingResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="GetAnnotationSettingResult"
type="tns:AnnotationSetting"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ValidateKpi">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ValidateKpiResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="ValidateKpiResult"
type="tns:ArrayOfString"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ValidateScorecard">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ValidateScorecardResponse">
        <xs:complexType>
          <xs:sequence>
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```
            <xs:element minOccurs="0" maxOccurs="1" name="ValidateScorecardResult"
type="tns:ArrayOfString"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ValidateSiteCollection">
        <xs:complexType/>
      </xs:element>
      <xs:element name="ValidateSiteCollectionResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="1" maxOccurs="1" name="ValidateSiteCollectionResult"
type="tns:URLValidationResult"/>
            <xs:element minOccurs="0" maxOccurs="1" name="siteCollectionUrl"
type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="siteUrl" type="xs:string"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:simpleType name="URLValidationResult">
        <xs:restriction base="xs:string">
          <xs:enumeration value="SiteCollectionOrSite"/>
          <xs:enumeration value="SiteCollection"/>
          <xs:enumeration value="Site"/>
          <xs:enumeration value="List"/>
          <xs:enumeration value="DocumentLibrary"/>
          <xs:enumeration value="InvalidURL"/>
          <xs:enumeration value="AlreadyExists"/>
          <xs:enumeration value="NonexistentSiteCollection"/>
          <xs:enumeration value="NonexistentSite"/>
          <xs:enumeration value="PPSNotActivatedOnSiteCollection"/>
          <xs:enumeration value="URLZoneNotAllowed"/>
          <xs:enumeration value="NoAccess"/>
          <xs:enumeration value="InvalidSiteVersion"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:element name="GetCurrentCultureLcid">
        <xs:complexType/>
      </xs:element>
      <xs:element name="GetCurrentCultureLcidResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="1" maxOccurs="1" name="GetCurrentCultureLcidResult"
type="xs:int"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetCurrentUserInfo">
        <xs:complexType/>
      </xs:element>
      <xs:element name="GetCurrentUserInfoResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="userName" type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="userDisplayName" type="xs:string"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GenerateView">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="scorecardLocation"
type="tns:RepositoryLocation"/>
            <xs:element minOccurs="0" maxOccurs="1" name="pageFilters"
type="tns:ArrayOfMember"/>
            <xs:element minOccurs="0" maxOccurs="1" name="propertyBags"
type="tns:DictionaryWrapperOfStringPropertyBag"/>
          </xs:sequence>
        </xs:complexType>
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      </xs:element>
      <xs:complexType name="DictionaryWrapperOfStringPropertyBag">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="Keys" type="tns:ArrayOfString"/>
          <xs:element minOccurs="0" maxOccurs="1" name="Values"
type="tns:ArrayOfPropertyBag"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ArrayOfPropertyBag">
        <xs:sequence>
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type="tns:PropertyBag"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="GridViewData">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="Cells" type="tns:GridCellSet"/>
          <xs:element minOccurs="0" maxOccurs="1" name="RootRowHeader"
type="tns:GridHeaderItem"/>
          <xs:element minOccurs="0" maxOccurs="1" name="RootColumnHeader"
type="tns:GridHeaderItem"/>
          <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation"
type="tns:RepositoryLocation"/>
          <xs:element minOccurs="0" maxOccurs="1" name="DefaultRollupIndicatorLocation"
type="tns:RepositoryLocation"/>
          <xs:element minOccurs="0" maxOccurs="1" name="PreQueryTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="1" name="PostQueryTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="1" name="PreRenderTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="1" name="PerUserTransforms"
type="tns:ArrayOfGridViewTransformReference"/>
          <xs:element minOccurs="0" maxOccurs="1" name="PageFilters"
type="tns:ArrayOfMember"/>
        </xs:sequence>
        <xs:attribute name="ScorecardViewId" type="s1:guid" use="required"/>
        <xs:attribute name="Cached" type="xs:boolean" use="required"/>
        <xs:attribute name="CacheExpiration" type="xs:dateTime" use="required"/>
        <xs:attribute name="DefaultRollupIndicatorId" type="s1:guid" use="required"/>
        <xs:attribute name="EmptyCell" type="xs:string"/>
        <xs:attribute name="InvalidCell" type="xs:string"/>
        <xs:attribute name="TIFormula" type="xs:string"/>
        <xs:attribute name="TICurrentDateTime" type="xs:string"/>
      </xs:complexType>
      <xs:complexType name="GridCellSet">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="Table"
type="tns:DictionaryWrapperOfStringGridCell"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="DictionaryWrapperOfStringGridCell">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="Keys" type="tns:ArrayOfString"/>
          <xs:element minOccurs="0" maxOccurs="1" name="Values" type="tns:ArrayOfGridCell"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ArrayOfGridCell">
        <xs:sequence>
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type="tns:GridCell"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="GridCell">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="FormatInfo"
type="tns:GridFormatInfo"/>
          <xs:element minOccurs="0" maxOccurs="1" name="Properties" type="tns:PropertyBag"/>
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          <xs:element minOccurs="0" maxOccurs="1" name="DisplayElements"
type="tns:ArrayOfGridDisplayElement"/>
          <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
          <xs:element minOccurs="1" maxOccurs="1" name="InBand" type="xs:int"/>
          <xs:element minOccurs="0" maxOccurs="1" name="CellAnnotation"
type="tns:Annotation"/>
        </xs:sequence>
        <xs:attribute name="Value" type="xs:decimal" use="required"/>
        <xs:attribute name="ActualValue" type="xs:decimal" use="required"/>
        <xs:attribute name="Score" type="xs:decimal" use="required"/>
        <xs:attribute name="Weight" type="xs:decimal" use="required"/>
        <xs:attribute name="BestChildScore" type="xs:decimal" use="required"/>
        <xs:attribute name="WorstChildScore" type="xs:decimal" use="required"/>
        <xs:attribute name="IsValueInError" type="xs:boolean" use="required"/>
        <xs:attribute name="HasAnnotation" type="xs:boolean" use="required"/>
        <xs:attribute name="IsRollupScore" type="xs:boolean" use="required"/>
        <xs:attribute name="ValueSource" type="tns:ValueSources" use="required"/>
        <xs:attribute name="IsValidScore" type="xs:boolean" use="required"/>
      </xs:complexType>
      <xs:complexType name="ArrayOfGridDisplayElement">
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nillable="true" type="tns:GridDisplayElement"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="GridDisplayElement" abstract="true">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="Text" type="xs:string"/>
          <xs:element minOccurs="0" maxOccurs="1" name="TooltipText" type="xs:string"/>
        </xs:sequence>
        <xs:attribute name="Status" type="tns:GridCellElmentStatus" use="required"/>
      </xs:complexType>
      <xs:simpleType name="GridCellElmentStatus">
        <xs:restriction base="xs:string">
          <xs:enumeration value="0"/>
          <xs:enumeration value="1"/>
          <xs:enumeration value="2"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:complexType name="GridDisplayElementHyperLink">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElement">
            <xs:attribute name="LinkUrl" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementIndicator">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
            </xs:sequence>
            <xs:attribute name="IndicatorBand" type="xs:int" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementText">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElement"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementIndicatorText">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElementText">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="IndicatorLocation"
type="tns:RepositoryLocation"/>
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            </xs:sequence>
            <xs:attribute name="IndicatorBand" type="xs:int" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementNumber" abstract="true">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElement">
            <xs:attribute name="Value" type="xs:decimal" use="required"/>
            <xs:attribute name="OverrideValue" type="xs:decimal" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementActual">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElementNumber"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementTarget">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElementNumber"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementVariance">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElementNumber"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementScore">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElementNumber"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="GridDisplayElementAggregation">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:GridDisplayElementNumber"/>
        </xs:complexContent>
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nillable="true" type="tns:GridViewTransformReference"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="GenerateViewResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="GenerateViewResult"
type="tns:GridViewData"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GenerateViewDirect">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="scorecard" type="tns:Scorecard"/>
            <xs:element minOccurs="0" maxOccurs="1" name="kpis" type="tns:ArrayOfKpi"/>
            <xs:element minOccurs="0" maxOccurs="1" name="dataSources"
type="tns:ArrayOfDataSource"/>
            <xs:element minOccurs="0" maxOccurs="1" name="indicators"
type="tns:ArrayOfIndicator"/>
            <xs:element minOccurs="0" maxOccurs="1" name="pageFilters"
type="tns:ArrayOfMember"/>
            <xs:element minOccurs="0" maxOccurs="1" name="propertyBags"
type="tns:DictionaryWrapperOfStringPropertyBag"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:complexType name="ArrayOfDataSource">
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type="tns:DataSource"/>
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      </xs:complexType>
      <xs:complexType name="ArrayOfIndicator">
        <xs:sequence>
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type="tns:Indicator"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="GenerateViewDirectResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="GenerateViewDirectResult"
type="tns:GridViewData"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetAsKpis">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="dataSource" type="tns:DataSource"/>
            <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetAsKpisResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="GetAsKpisResult"
type="tns:ArrayOfKpi"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="CreateDashboard">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="listUrl" type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="dashboard" type="tns:Dashboard"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:complexType name="Dashboard">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:FirstClassElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="Pages"
type="tns:ArrayOfDashboardElement"/>
            </xs:sequence>
            <xs:attribute name="TemplateType" type="xs:string"/>
            <xs:attribute name="DeploymentPath" type="xs:string"/>
            <xs:attribute name="SitePath" type="xs:string"/>
            <xs:attribute name="MasterPagePath" type="xs:string"/>
            <xs:attribute name="MasterPageDisplayName" type="xs:string"/>
            <xs:attribute name="PageList" type="xs:string"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="ArrayOfDashboardElement">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="DashboardElement"
nillable="true" type="tns:DashboardElement"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="DashboardElement" abstract="true">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:SecondClassElement">
            <xs:sequence>
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              <xs:element minOccurs="0" maxOccurs="1" name="Height"
type="tns:DashboardElementSize"/>
              <xs:element minOccurs="0" maxOccurs="1" name="Width"
type="tns:DashboardElementSize"/>
            </xs:sequence>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="DashboardElementSize">
        <xs:attribute name="Measurement" type="xs:int" use="required"/>
        <xs:attribute name="Units" type="tns:SizeType" use="required"/>
      </xs:complexType>
      <xs:simpleType name="SizeType">
        <xs:restriction base="xs:string">
          <xs:enumeration value="AutoSize"/>
          <xs:enumeration value="Absolute"/>
          <xs:enumeration value="Percent"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:complexType name="DashboardItem">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:DashboardElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="InboundParameters"
type="tns:ArrayOfParameterMapping"/>
              <xs:element minOccurs="0" maxOccurs="1" name="UnderlyingElementLocation"
type="tns:RepositoryLocation"/>
            </xs:sequence>
            <xs:attribute name="UnderlyingElementTypeName" type="xs:string"/>
            <xs:attribute name="AutoSizeWidth" type="xs:boolean" use="required"/>
            <xs:attribute name="AutoSizeHeight" type="xs:boolean" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="ArrayOfParameterMapping">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="ParameterMapping"
nillable="true" type="tns:ParameterMapping"/>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ParameterMapping">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="1" name="ConditionalData">
            <xs:complexType>
              <xs:sequence>
                <xs:any minOccurs="0" maxOccurs="unbounded"
namespace="http://www.w3.org/2001/XMLSchema" processContents="lax"/>
                <xs:any minOccurs="1" namespace="urn:schemas-microsoft-com:xml-diffgram-v1"
processContents="lax"/>
              </xs:sequence>
            </xs:complexType>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="EndPointUniqueName" type="xs:string"/>
        <xs:attribute name="Id" type="s1:guid" use="required"/>
        <xs:attribute name="SourceColumnName" type="xs:string"/>
        <xs:attribute name="DashboardItemId" type="s1:guid" use="required"/>
        <xs:attribute name="ParameterUniqueName" type="xs:string"/>
        <xs:attribute name="PostFormula" type="xs:string"/>
        <xs:attribute name="IsConditionalDataEnabled" type="xs:boolean" use="required"/>
        <xs:attribute name="IsDefaultVisibility" type="xs:boolean" use="required"/>
      </xs:complexType>
      <xs:complexType name="DashboardElementContainer">
        <xs:complexContent mixed="false">
          <xs:extension base="tns:DashboardElement">
            <xs:sequence>
              <xs:element minOccurs="0" maxOccurs="1" name="DashboardElements"
type="tns:ArrayOfDashboardElement"/>
            </xs:sequence>
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            <xs:attribute name="Orientation" type="tns:LayoutOrientation" use="required"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:simpleType name="LayoutOrientation">
        <xs:restriction base="xs:string">
          <xs:enumeration value="HorizontalLeftJustified"/>
          <xs:enumeration value="HorizontalRightJustified"/>
          <xs:enumeration value="VerticalBottomJustified"/>
          <xs:enumeration value="VerticalTopJustified"/>
          <xs:enumeration value="Stacked"/>
          <xs:enumeration value="Hidden"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:element name="CreateDashboardResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="CreateDashboardResult"
type="tns:Dashboard"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="UpdateDashboard">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="dashboard" type="tns:Dashboard"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="UpdateDashboardResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="UpdateDashboardResult"
type="tns:Dashboard"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetDashboard">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetDashboardResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="GetDashboardResult"
type="tns:Dashboard"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="DeleteDashboard">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="location"
type="tns:RepositoryLocation"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="DeleteDashboardResponse">
        <xs:complexType/>
      </xs:element>
      <xs:element name="ImportDashboard">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="siteUrl" type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="filename" type="xs:string"/>
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            <xs:element minOccurs="0" maxOccurs="1" name="locationMap">
              <xs:complexType mixed="true">
                <xs:sequence>
                  <xs:any/>
                </xs:sequence>
              </xs:complexType>
            </xs:element>
            <xs:element minOccurs="0" maxOccurs="1" name="datasourceMap">
              <xs:complexType mixed="true">
                <xs:sequence>
                  <xs:any/>
                </xs:sequence>
              </xs:complexType>
            </xs:element>
            <xs:element minOccurs="0" maxOccurs="1" name="masterPageUrl" type="xs:string"/>
          </xs:sequence>
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type="xs:string"/>
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type="tns:RepositoryLocation"/>
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type="tns:GridViewData"/>
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type="tns:RepositoryLocation"/>
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              <xs:enumeration value="ReportView"/>
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type="tns:FCOContentType"/>
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          <xs:enumeration value="DataSource"/>
          <xs:enumeration value="Dashboard"/>
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use="optional"/>
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use="optional">
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[0-9a-fA-F]{12}"/>
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[0-9a-fA-F]{12}"/>
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[0-9a-fA-F]{12}"/>
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[0-9a-fA-F]{12}"/>
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type="xs:string"/>
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type="tns:AnalyticChartLegend"/>
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type="tns:AnalyticMarkerStyle"/>
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type="tns:FormatNegativeSymbol"/>
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type="tns:DateAggregationTypes"/>
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type="tns:Member"/>
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type="xs:dateTime"/>
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type="tns:TimeIntelligenceDataSource"/>
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type="tns:ArrayOfTimeIntelligenceDataSource"/>
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type="tns:FirstClassObjectType"/>
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type="tns:ArrayOfString"/>
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type="tns:ArrayOfMember"/>
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        <xs:attribute name="DocumentLibraryRootFolder" type="xs:string"/>
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use="required"/>
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              <xs:enumeration value="AllowFiltering"/>
              <xs:enumeration value="AllowHyperlinks"/>
              <xs:enumeration value="AllowPivotSpecificOperations"/>
              <xs:enumeration value="AllowPeriodicRefresh"/>
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              <xs:enumeration value="AllowScratchPadMode"/>
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type="tns:DataTableMapping"/>
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type="tns:RepositoryLocation"/>
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type="xs:boolean"/>
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type="tns:RepositoryLocation"/>
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type="tns:RepositoryLocation"/>
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type="tns:AnalyticGridReportView"/>
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type="tns:ReportLayout"/>
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type="xs:boolean"/>
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type="xs:int"/>
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type="xs:int"/>
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        <xs:attribute name="ConfigOptions" type="xs:string"/>
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use="required"/>
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type="tns:StringCollection"/>
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          <xs:enumeration value="Point"/>
          <xs:enumeration value="Inch"/>
          <xs:enumeration value="Document"/>
          <xs:enumeration value="Millimeter"/>
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9a-fA-F]{12}"/>
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    </wsdl:operation>
    <wsdl:operation name="UpdateDataSource">
      <wsdl:input message="tns:UpdateDataSourceSoapIn"/>
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    </wsdl:operation>
    <wsdl:operation name="GetDataSource">
      <wsdl:input message="tns:GetDataSourceSoapIn"/>
      <wsdl:output message="tns:GetDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="DeleteDataSource">
      <wsdl:input message="tns:DeleteDataSourceSoapIn"/>
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    </wsdl:operation>
    <wsdl:operation name="CreateKpi">
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      <wsdl:output message="tns:CreateKpiSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="UpdateKpi">
      <wsdl:input message="tns:UpdateKpiSoapIn"/>
      <wsdl:output message="tns:UpdateKpiSoapOut"/>
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<wsdl:operation name="UpdateReportView">
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  <wsdl:output message="tns:GetReportViewSoapOut"/>
</wsdl:operation>
<wsdl:operation name="DeleteReportView">
  <wsdl:input message="tns:DeleteReportViewSoapIn"/>
  <wsdl:output message="tns:DeleteReportViewSoapOut"/>
</wsdl:operation>
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  <wsdl:input message="tns:GetAnalyticReportViewSoapIn"/>
  <wsdl:output message="tns:GetAnalyticReportViewSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetLatestAnalyticReportVersion">
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  <wsdl:output message="tns:GetLatestAnalyticReportVersionSoapOut"/>
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  <wsdl:output message="tns:SaveTemporaryAnalyticReportSoapOut"/>
</wsdl:operation>
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</wsdl:operation>
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  <wsdl:output message="tns:GetAnnotationSoapOut"/>
</wsdl:operation>
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  <wsdl:output message="tns:GetAnnotationByIDSoapOut"/>
</wsdl:operation>
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  <wsdl:output message="tns:GetAllAnnotationsByScorecardLocationSoapOut"/>
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  <wsdl:output message="tns:UpdateAnnotationSoapOut"/>
</wsdl:operation>
<wsdl:operation name="DeleteAnnotation">
  <wsdl:input message="tns:DeleteAnnotationSoapIn"/>
  <wsdl:output message="tns:DeleteAnnotationSoapOut"/>
</wsdl:operation>
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  <wsdl:input message="tns:TrimAnnotationByScorecardLocationSoapIn"/>
  <wsdl:output message="tns:TrimAnnotationByScorecardLocationSoapOut"/>
</wsdl:operation>
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  <wsdl:input message="tns:TrimAnnotationByOwnerSoapIn"/>
  <wsdl:output message="tns:TrimAnnotationByOwnerSoapOut"/>
</wsdl:operation>
<wsdl:operation name="TrimAnnotationUntouchedSince">
  <wsdl:input message="tns:TrimAnnotationUntouchedSinceSoapIn"/>
  <wsdl:output message="tns:TrimAnnotationUntouchedSinceSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetDatabaseNamesFromDataSource">
  <wsdl:input message="tns:GetDatabaseNamesFromDataSourceSoapIn"/>
  <wsdl:output message="tns:GetDatabaseNamesFromDataSourceSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetMdx">
  <wsdl:input message="tns:GetMdxSoapIn"/>
  <wsdl:output message="tns:GetMdxSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetCubeNameInfos">
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```
      <wsdl:input message="tns:GetCubeNameInfosSoapIn"/>
      <wsdl:output message="tns:GetCubeNameInfosSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetPreviewDataSet">
      <wsdl:input message="tns:GetPreviewDataSetSoapIn"/>
      <wsdl:output message="tns:GetPreviewDataSetSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="TestConnection">
      <wsdl:input message="tns:TestConnectionSoapIn"/>
      <wsdl:output message="tns:TestConnectionSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetCubeMetaData">
      <wsdl:input message="tns:GetCubeMetaDataSoapIn"/>
      <wsdl:output message="tns:GetCubeMetaDataSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetCubeMetaDataForDataSource">
      <wsdl:input message="tns:GetCubeMetaDataForDataSourceSoapIn"/>
      <wsdl:output message="tns:GetCubeMetaDataForDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetDimensions">
      <wsdl:input message="tns:GetDimensionsSoapIn"/>
      <wsdl:output message="tns:GetDimensionsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetDimensionsFromDataSource">
      <wsdl:input message="tns:GetDimensionsFromDataSourceSoapIn"/>
      <wsdl:output message="tns:GetDimensionsFromDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetCube">
      <wsdl:input message="tns:GetCubeSoapIn"/>
      <wsdl:output message="tns:GetCubeSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetCubeFromDataSource">
      <wsdl:input message="tns:GetCubeFromDataSourceSoapIn"/>
      <wsdl:output message="tns:GetCubeFromDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryDimensionRootMembers">
      <wsdl:input message="tns:QueryDimensionRootMembersSoapIn"/>
      <wsdl:output message="tns:QueryDimensionRootMembersSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryDimensionRootMembersFromDataSource">
      <wsdl:input message="tns:QueryDimensionRootMembersFromDataSourceSoapIn"/>
      <wsdl:output message="tns:QueryDimensionRootMembersFromDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryTransformMembers">
      <wsdl:input message="tns:QueryTransformMembersSoapIn"/>
      <wsdl:output message="tns:QueryTransformMembersSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembers">
      <wsdl:input message="tns:QueryChildMembersSoapIn"/>
      <wsdl:output message="tns:QueryChildMembersSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembersFromDataSource">
      <wsdl:input message="tns:QueryChildMembersFromDataSourceSoapIn"/>
      <wsdl:output message="tns:QueryChildMembersFromDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembersByRangeFromDataSource">
      <wsdl:input message="tns:QueryChildMembersByRangeFromDataSourceSoapIn"/>
      <wsdl:output message="tns:QueryChildMembersByRangeFromDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryRelatedMember">
      <wsdl:input message="tns:QueryRelatedMemberSoapIn"/>
      <wsdl:output message="tns:QueryRelatedMemberSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryRelatedMemberFromDataSource">
      <wsdl:input message="tns:QueryRelatedMemberFromDataSourceSoapIn"/>
      <wsdl:output message="tns:QueryRelatedMemberFromDataSourceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryNamedSets">
      <wsdl:input message="tns:QueryNamedSetsSoapIn"/>
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```
  <wsdl:output message="tns:QueryNamedSetsSoapOut"/>
</wsdl:operation>
<wsdl:operation name="QueryNamedSetsFromDataSource">
  <wsdl:input message="tns:QueryNamedSetsFromDataSourceSoapIn"/>
  <wsdl:output message="tns:QueryNamedSetsFromDataSourceSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetAnnotationSetting">
  <wsdl:input message="tns:GetAnnotationSettingSoapIn"/>
  <wsdl:output message="tns:GetAnnotationSettingSoapOut"/>
</wsdl:operation>
<wsdl:operation name="ValidateKpi">
  <wsdl:input message="tns:ValidateKpiSoapIn"/>
  <wsdl:output message="tns:ValidateKpiSoapOut"/>
</wsdl:operation>
<wsdl:operation name="ValidateScorecard">
  <wsdl:input message="tns:ValidateScorecardSoapIn"/>
  <wsdl:output message="tns:ValidateScorecardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="ValidateSiteCollection">
  <wsdl:input message="tns:ValidateSiteCollectionSoapIn"/>
  <wsdl:output message="tns:ValidateSiteCollectionSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetCurrentCultureLcid">
  <wsdl:input message="tns:GetCurrentCultureLcidSoapIn"/>
  <wsdl:output message="tns:GetCurrentCultureLcidSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetCurrentUserInfo">
  <wsdl:input message="tns:GetCurrentUserInfoSoapIn"/>
  <wsdl:output message="tns:GetCurrentUserInfoSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GenerateView">
  <wsdl:input message="tns:GenerateViewSoapIn"/>
  <wsdl:output message="tns:GenerateViewSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GenerateViewDirect">
  <wsdl:input message="tns:GenerateViewDirectSoapIn"/>
  <wsdl:output message="tns:GenerateViewDirectSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetAsKpis">
  <wsdl:input message="tns:GetAsKpisSoapIn"/>
  <wsdl:output message="tns:GetAsKpisSoapOut"/>
</wsdl:operation>
<wsdl:operation name="CreateDashboard">
  <wsdl:input message="tns:CreateDashboardSoapIn"/>
  <wsdl:output message="tns:CreateDashboardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="UpdateDashboard">
  <wsdl:input message="tns:UpdateDashboardSoapIn"/>
  <wsdl:output message="tns:UpdateDashboardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetDashboard">
  <wsdl:input message="tns:GetDashboardSoapIn"/>
  <wsdl:output message="tns:GetDashboardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="DeleteDashboard">
  <wsdl:input message="tns:DeleteDashboardSoapIn"/>
  <wsdl:output message="tns:DeleteDashboardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="ImportDashboard">
  <wsdl:input message="tns:ImportDashboardSoapIn"/>
  <wsdl:output message="tns:ImportDashboardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="ExportDashboard">
  <wsdl:input message="tns:ExportDashboardSoapIn"/>
  <wsdl:output message="tns:ExportDashboardSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetParameterDisplayData">
  <wsdl:input message="tns:GetParameterDisplayDataSoapIn"/>
  <wsdl:output message="tns:GetParameterDisplayDataSoapOut"/>
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    </wsdl:operation>
    <wsdl:operation name="QueryTimeIntelligence">
      <wsdl:input message="tns:QueryTimeIntelligenceSoapIn"/>
      <wsdl:output message="tns:QueryTimeIntelligenceSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="QueryTimeIntelligenceDirect">
      <wsdl:input message="tns:QueryTimeIntelligenceDirectSoapIn"/>
      <wsdl:output message="tns:QueryTimeIntelligenceDirectSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetRegisteredCustomFCOs">
      <wsdl:input message="tns:GetRegisteredCustomFCOsSoapIn"/>
      <wsdl:output message="tns:GetRegisteredCustomFCOsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetListItems">
      <wsdl:input message="tns:GetListItemsSoapIn"/>
      <wsdl:output message="tns:GetListItemsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetDependentElements">
      <wsdl:input message="tns:GetDependentElementsSoapIn"/>
      <wsdl:output message="tns:GetDependentElementsSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="PPSAuthoringServiceSoap" type="tns:PPSAuthoringServiceSoap">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="CreateDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateDataSource"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateDataSource"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDataSource"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteDataSource"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateKpi">
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      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateKpi"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateKpi">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateKpi"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetKpisFromScorecard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetKpisFromScorecard"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetKpi">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetKpi" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteKpi">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteKpi"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateScorecard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateScorecard"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateScorecard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateScorecard"
style="document"/>
      <wsdl:input>
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        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetScorecard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetScorecard"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteScorecard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteScorecard"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateFilter">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateFilter"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateFilter">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateFilter"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetFilter">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetFilter"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteFilter">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteFilter"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
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        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateIndicator">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateIndicator"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateIndicator">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateIndicator"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetIndicator">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetIndicator"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteIndicator">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteIndicator"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateReportView">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateReportView"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateReportView">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateReportView"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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```
    <wsdl:operation name="GetReportView">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetReportView"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteReportView">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteReportView"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAnalyticReportView">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnalyticReportView"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetLatestAnalyticReportVersion">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetLatestAnalyticReportVersi
on" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SaveTemporaryAnalyticReport">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/SaveTemporaryAnalyticReport"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetQueryResultMembers">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetQueryResultMembers"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAnnotation">
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```
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnnotation"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAnnotationByID">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnnotationByID"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAllAnnotationsByScorecardLocation">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAllAnnotationsByScorecard
Location" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateAnnotation">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateAnnotation"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateAnnotation">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateAnnotation"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteAnnotation">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteAnnotation"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TrimAnnotationByScorecardLocation">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationByScorecardLoc
ation" style="document"/>
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      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TrimAnnotationByOwner">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationByOwner"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TrimAnnotationUntouchedSince">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationUntouchedSince
" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDatabaseNamesFromDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDatabaseNamesFromDataSour
ce" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetMdx">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetMdx" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCubeNameInfos">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeNameInfos"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetPreviewDataSet">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetPreviewDataSet"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
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        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TestConnection">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TestConnection"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCubeMetaData">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeMetaData"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="GetCubeMetaDataForDataSource">
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soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeMetaDataForDataSource
" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDimensions">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDimensions"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDimensionsFromDataSource">
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soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDimensionsFromDataSource"
style="document"/>
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        <soap:body use="literal"/>
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    </wsdl:operation>
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soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCube" style="document"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCubeFromDataSource">
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      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeFromDataSource"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryDimensionRootMembers">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryDimensionRootMembers"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryDimensionRootMembersFro
mDataSource" style="document"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryTransformMembers">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryTransformMembers"
style="document"/>
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        <soap:body use="literal"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembers">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryChildMembers"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembersFromDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryChildMembersFromDataSou
rce" style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembersByRangeFromDataSource">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryChildMembersByRangeFrom
DataSource" style="document"/>
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      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryRelatedMember">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryRelatedMember"
style="document"/>
      <wsdl:input>
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      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryRelatedMemberFromDataSource">
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryNamedSets">
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soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryNamedSets"
style="document"/>
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        <soap:body use="literal"/>
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    </wsdl:operation>
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soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryNamedSetsFromDataSource
" style="document"/>
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      <wsdl:output>
        <soap:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="GetAnnotationSetting">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnnotationSetting"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ValidateKpi">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ValidateKpi"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ValidateScorecard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ValidateScorecard"
style="document"/>
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        <soap:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="ValidateSiteCollection">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ValidateSiteCollection"
style="document"/>
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        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCurrentCultureLcid">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCurrentCultureLcid"
style="document"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCurrentUserInfo">
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soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCurrentUserInfo"
style="document"/>
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        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GenerateView">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GenerateView"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GenerateViewDirect">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GenerateViewDirect"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
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    </wsdl:operation>
    <wsdl:operation name="GetAsKpis">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAsKpis"
style="document"/>
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        <soap:body use="literal"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateDashboard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateDashboard"
style="document"/>
      <wsdl:input>
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        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateDashboard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateDashboard"
style="document"/>
      <wsdl:input>
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      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDashboard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDashboard"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="DeleteDashboard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteDashboard"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ImportDashboard">
      <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ImportDashboard"
style="document"/>
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        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ExportDashboard">
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      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/ExportDashboard"
    style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetParameterDisplayData">
      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/GetParameterDisplayData"
    style="document"/>
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        <soap:body use="literal"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryTimeIntelligence">
      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryTimeIntelligence"
    style="document"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryTimeIntelligenceDirect">
      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryTimeIntelligenceDirect"
    style="document"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetRegisteredCustomFCOs">
      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/GetRegisteredCustomFCOs"
    style="document"/>
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        <soap:body use="literal"/>
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      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetListItems">
      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/GetListItems"
    style="document"/>
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        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDependentElements">
      <soap:operation
    soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDependentElements"
    style="document"/>
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      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:binding name="PPSAuthoringServiceSoap12" type="tns:PPSAuthoringServiceSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="CreateDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateDataSource"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateDataSource"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="GetDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDataSource"
style="document"/>
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      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteDataSource"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateKpi">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateKpi"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
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    </wsdl:operation>
    <wsdl:operation name="UpdateKpi">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateKpi"
style="document"/>
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      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetKpisFromScorecard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetKpisFromScorecard"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetKpi" style="document"/>
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      <wsdl:output>
        <soap12:body use="literal"/>
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    </wsdl:operation>
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soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteKpi"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateScorecard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateScorecard"
style="document"/>
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      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateScorecard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateScorecard"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="GetScorecard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetScorecard"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
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        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteScorecard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteScorecard"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateFilter">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateFilter"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
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    </wsdl:operation>
    <wsdl:operation name="UpdateFilter">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateFilter"
style="document"/>
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        <soap12:body use="literal"/>
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    </wsdl:operation>
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soapAction="http://www.microsoft.com/performancepoint/scorecards/GetFilter"
style="document"/>
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      <wsdl:output>
        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="DeleteFilter">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteFilter"
style="document"/>
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        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="CreateIndicator">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateIndicator"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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    <wsdl:operation name="UpdateIndicator">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateIndicator"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetIndicator"
style="document"/>
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        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteIndicator">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteIndicator"
style="document"/>
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        <soap12:body use="literal"/>
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        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="CreateReportView">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateReportView"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
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      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateReportView"
style="document"/>
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        <soap12:body use="literal"/>
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        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetReportView">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetReportView"
style="document"/>
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        <soap12:body use="literal"/>
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      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteReportView">
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      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteReportView"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAnalyticReportView">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnalyticReportView"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetLatestAnalyticReportVersion">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetLatestAnalyticReportVersi
on" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="SaveTemporaryAnalyticReport">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/SaveTemporaryAnalyticReport"
style="document"/>
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        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="GetQueryResultMembers">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetQueryResultMembers"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
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    </wsdl:operation>
    <wsdl:operation name="GetAnnotation">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnnotation"
style="document"/>
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      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAnnotationByID">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnnotationByID"
style="document"/>
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```
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAllAnnotationsByScorecardLocation">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAllAnnotationsByScorecard
Location" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateAnnotation">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateAnnotation"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateAnnotation">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateAnnotation"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteAnnotation">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteAnnotation"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TrimAnnotationByScorecardLocation">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationByScorecardLoc
ation" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TrimAnnotationByOwner">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationByOwner"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
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```
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TrimAnnotationUntouchedSince">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TrimAnnotationUntouchedSince
" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDatabaseNamesFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDatabaseNamesFromDataSour
ce" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetMdx">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetMdx" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCubeNameInfos">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeNameInfos"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetPreviewDataSet">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetPreviewDataSet"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="TestConnection">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/TestConnection"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
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    <wsdl:operation name="GetCubeMetaData">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeMetaData"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCubeMetaDataForDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeMetaDataForDataSource
" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDimensions">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDimensions"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDimensionsFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDimensionsFromDataSource"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCube">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCube" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCubeFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCubeFromDataSource"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryDimensionRootMembers">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryDimensionRootMembers"
style="document"/>
```


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      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryDimensionRootMembersFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryDimensionRootMembersFro
mDataSource" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryTransformMembers">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryTransformMembers"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembers">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryChildMembers"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembersFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryChildMembersFromDataSou
rce" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryChildMembersByRangeFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryChildMembersByRangeFrom
DataSource" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryRelatedMember">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryRelatedMember"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
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```
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryRelatedMemberFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryRelatedMemberFromDataSo
urce" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryNamedSets">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryNamedSets"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryNamedSetsFromDataSource">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryNamedSetsFromDataSource
" style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAnnotationSetting">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAnnotationSetting"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ValidateKpi">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ValidateKpi"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ValidateScorecard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ValidateScorecard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
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    </wsdl:operation>
    <wsdl:operation name="ValidateSiteCollection">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ValidateSiteCollection"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCurrentCultureLcid">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCurrentCultureLcid"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCurrentUserInfo">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetCurrentUserInfo"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GenerateView">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GenerateView"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GenerateViewDirect">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GenerateViewDirect"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAsKpis">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetAsKpis"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateDashboard">
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      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateDashboard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateDashboard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/UpdateDashboard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDashboard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDashboard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteDashboard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/DeleteDashboard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ImportDashboard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ImportDashboard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ExportDashboard">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ExportDashboard"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetParameterDisplayData">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetParameterDisplayData"
style="document"/>
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```
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryTimeIntelligence">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryTimeIntelligence"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="QueryTimeIntelligenceDirect">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/QueryTimeIntelligenceDirect"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetRegisteredCustomFCOs">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetRegisteredCustomFCOs"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetListItems">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetListItems"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetDependentElements">
      <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/GetDependentElements"
style="document"/>
      <wsdl:input>
        <soap12:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:message name="CreateAnnotationSoapIn">
    <wsdl:part name="parameters" element="tns:CreateAnnotation"/>
  </wsdl:message>
  <wsdl:message name="CreateAnnotationSoapOut">
    <wsdl:part name="parameters" element="tns:CreateAnnotationResponse"/>
  </wsdl:message>
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<wsdl:message name="CreateDashboardSoapIn">
  <wsdl:part name="parameters" element="tns:CreateDashboard"/>
</wsdl:message>
<wsdl:message name="CreateDashboardSoapOut">
  <wsdl:part name="parameters" element="tns:CreateDashboardResponse"/>
</wsdl:message>
<wsdl:message name="CreateDataSourceSoapIn">
  <wsdl:part name="parameters" element="tns:CreateDataSource"/>
</wsdl:message>
<wsdl:message name="CreateDataSourceSoapOut">
  <wsdl:part name="parameters" element="tns:CreateDataSourceResponse"/>
</wsdl:message>
<wsdl:message name="CreateFilterSoapIn">
  <wsdl:part name="parameters" element="tns:CreateFilter"/>
</wsdl:message>
<wsdl:message name="CreateFilterSoapOut">
  <wsdl:part name="parameters" element="tns:CreateFilterResponse"/>
</wsdl:message>
<wsdl:message name="CreateIndicatorSoapIn">
  <wsdl:part name="parameters" element="tns:CreateIndicator"/>
</wsdl:message>
<wsdl:message name="CreateIndicatorSoapOut">
  <wsdl:part name="parameters" element="tns:CreateIndicatorResponse"/>
</wsdl:message>
<wsdl:message name="CreateKpiSoapIn">
  <wsdl:part name="parameters" element="tns:CreateKpi"/>
</wsdl:message>
<wsdl:message name="CreateKpiSoapOut">
  <wsdl:part name="parameters" element="tns:CreateKpiResponse"/>
</wsdl:message>
<wsdl:message name="CreateReportViewSoapIn">
  <wsdl:part name="parameters" element="tns:CreateReportView"/>
</wsdl:message>
<wsdl:message name="CreateReportViewSoapOut">
  <wsdl:part name="parameters" element="tns:CreateReportViewResponse"/>
</wsdl:message>
<wsdl:message name="CreateScorecardSoapIn">
  <wsdl:part name="parameters" element="tns:CreateScorecard"/>
</wsdl:message>
<wsdl:message name="CreateScorecardSoapOut">
  <wsdl:part name="parameters" element="tns:CreateScorecardResponse"/>
</wsdl:message>
<wsdl:message name="DeleteAnnotationSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteAnnotation"/>
</wsdl:message>
<wsdl:message name="DeleteAnnotationSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteAnnotationResponse"/>
</wsdl:message>
<wsdl:message name="DeleteDashboardSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteDashboard"/>
</wsdl:message>
<wsdl:message name="DeleteDashboardSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteDashboardResponse"/>
</wsdl:message>
<wsdl:message name="DeleteDataSourceSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteDataSource"/>
</wsdl:message>
<wsdl:message name="DeleteDataSourceSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteDataSourceResponse"/>
</wsdl:message>
<wsdl:message name="DeleteFilterSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteFilter"/>
</wsdl:message>
<wsdl:message name="DeleteFilterSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteFilterResponse"/>
</wsdl:message>
<wsdl:message name="DeleteIndicatorSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteIndicator"/>
</wsdl:message>
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```
<wsdl:message name="DeleteIndicatorSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteIndicatorResponse"/>
</wsdl:message>
<wsdl:message name="DeleteKpiSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteKpi"/>
</wsdl:message>
<wsdl:message name="DeleteKpiSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteKpiResponse"/>
</wsdl:message>
<wsdl:message name="DeleteReportViewSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteReportView"/>
</wsdl:message>
<wsdl:message name="DeleteReportViewSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteReportViewResponse"/>
</wsdl:message>
<wsdl:message name="DeleteScorecardSoapIn">
  <wsdl:part name="parameters" element="tns:DeleteScorecard"/>
</wsdl:message>
<wsdl:message name="DeleteScorecardSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteScorecardResponse"/>
</wsdl:message>
<wsdl:message name="ExportDashboardSoapIn">
  <wsdl:part name="parameters" element="tns:ExportDashboard"/>
</wsdl:message>
<wsdl:message name="ExportDashboardSoapOut">
  <wsdl:part name="parameters" element="tns:ExportDashboardResponse"/>
</wsdl:message>
<wsdl:message name="GenerateViewDirectSoapIn">
  <wsdl:part name="parameters" element="tns:GenerateViewDirect"/>
</wsdl:message>
<wsdl:message name="GenerateViewDirectSoapOut">
  <wsdl:part name="parameters" element="tns:GenerateViewDirectResponse"/>
</wsdl:message>
<wsdl:message name="GenerateViewSoapIn">
  <wsdl:part name="parameters" element="tns:GenerateView"/>
</wsdl:message>
<wsdl:message name="GenerateViewSoapOut">
  <wsdl:part name="parameters" element="tns:GenerateViewResponse"/>
</wsdl:message>
<wsdl:message name="GetAllAnnotationsByScorecardLocationSoapIn">
  <wsdl:part name="parameters" element="tns:GetAllAnnotationsByScorecardLocation"/>
</wsdl:message>
<wsdl:message name="GetAllAnnotationsByScorecardLocationSoapOut">
  <wsdl:part name="parameters" element="tns:GetAllAnnotationsByScorecardLocationResponse"/>
</wsdl:message>
<wsdl:message name="GetAnalyticReportViewSoapIn">
  <wsdl:part name="parameters" element="tns:GetAnalyticReportView"/>
</wsdl:message>
<wsdl:message name="GetAnalyticReportViewSoapOut">
  <wsdl:part name="parameters" element="tns:GetAnalyticReportViewResponse"/>
</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetAnnotationByID"/>
</wsdl:message>
<wsdl:message name="GetAnnotationByIDSoapOut">
  <wsdl:part name="parameters" element="tns:GetAnnotationByIDResponse"/>
</wsdl:message>
<wsdl:message name="GetAnnotationSettingHttpGetIn"/>
<wsdl:message name="GetAnnotationSettingHttpGetOut">
  <wsdl:part name="Body" element="tns:AnnotationSetting"/>
</wsdl:message>
<wsdl:message name="GetAnnotationSettingHttpPostIn"/>
<wsdl:message name="GetAnnotationSettingHttpPostOut">
  <wsdl:part name="Body" element="tns:AnnotationSetting"/>
</wsdl:message>
<wsdl:message name="GetAnnotationSettingSoapIn">
  <wsdl:part name="parameters" element="tns:GetAnnotationSetting"/>
</wsdl:message>
<wsdl:message name="GetAnnotationSettingSoapOut">
```


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```
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  <wsdl:part name="parameters" element="tns:GetAnnotation"/>
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  <wsdl:part name="parameters" element="tns:GetAnnotationResponse"/>
</wsdl:message>
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</wsdl:message>
<wsdl:message name="GetAsKpisSoapOut">
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</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetCubeFromDataSourceResponse"/>
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  <wsdl:part name="parameters" element="tns:GetCubeMetaDataForDataSource"/>
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  <wsdl:part name="parameters" element="tns:GetCubeMetaDataResponse"/>
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  <wsdl:part name="parameters" element="tns:GetCubeNameInfos"/>
</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetCubeNameInfosResponse"/>
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  <wsdl:part name="parameters" element="tns:GetCube"/>
</wsdl:message>
<wsdl:message name="GetCubeSoapOut">
  <wsdl:part name="parameters" element="tns:GetCubeResponse"/>
</wsdl:message>
<wsdl:message name="GetCurrentCultureLcidHttpGetIn"/>
<wsdl:message name="GetCurrentCultureLcidHttpGetOut">
  <wsdl:part name="Body" element="tns:int"/>
</wsdl:message>
<wsdl:message name="GetCurrentCultureLcidHttpPostIn"/>
<wsdl:message name="GetCurrentCultureLcidHttpPostOut">
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</wsdl:message>
<wsdl:message name="GetCurrentCultureLcidSoapOut">
  <wsdl:part name="parameters" element="tns:GetCurrentCultureLcidResponse"/>
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</wsdl:message>
<wsdl:message name="GetCurrentUserInfoSoapOut">
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  <wsdl:part name="parameters" element="tns:GetDashboard"/>
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<wsdl:message name="GetDashboardSoapOut">
  <wsdl:part name="parameters" element="tns:GetDashboardResponse"/>
```


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```
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</wsdl:message>
<wsdl:message name="GetDatabaseNamesFromDataSourceSoapOut">
  <wsdl:part name="parameters" element="tns:GetDatabaseNamesFromDataSourceResponse"/>
</wsdl:message>
<wsdl:message name="GetDataSourceSoapIn">
  <wsdl:part name="parameters" element="tns:GetDataSource"/>
</wsdl:message>
<wsdl:message name="GetDataSourceSoapOut">
  <wsdl:part name="parameters" element="tns:GetDataSourceResponse"/>
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  <wsdl:part name="parameters" element="tns:GetDependentElements"/>
</wsdl:message>
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<wsdl:message name="GetDimensionsFromDataSourceSoapOut">
  <wsdl:part name="parameters" element="tns:GetDimensionsFromDataSourceResponse"/>
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  <wsdl:part name="parameters" element="tns:GetDimensions"/>
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</wsdl:message>
<wsdl:message name="GetFilterSoapOut">
  <wsdl:part name="parameters" element="tns:GetFilterResponse"/>
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  <wsdl:part name="parameters" element="tns:GetIndicator"/>
</wsdl:message>
<wsdl:message name="GetIndicatorSoapOut">
  <wsdl:part name="parameters" element="tns:GetIndicatorResponse"/>
</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetKpisFromScorecard"/>
</wsdl:message>
<wsdl:message name="GetKpisFromScorecardSoapOut">
  <wsdl:part name="parameters" element="tns:GetKpisFromScorecardResponse"/>
</wsdl:message>
<wsdl:message name="GetKpiSoapIn">
  <wsdl:part name="parameters" element="tns:GetKpi"/>
</wsdl:message>
<wsdl:message name="GetKpiSoapOut">
  <wsdl:part name="parameters" element="tns:GetKpiResponse"/>
</wsdl:message>
<wsdl:message name="GetLatestAnalyticReportVersionSoapIn">
  <wsdl:part name="parameters" element="tns:GetLatestAnalyticReportVersion"/>
</wsdl:message>
<wsdl:message name="GetLatestAnalyticReportVersionSoapOut">
  <wsdl:part name="parameters" element="tns:GetLatestAnalyticReportVersionResponse"/>
</wsdl:message>
<wsdl:message name="GetListItemsHttpGetIn">
  <wsdl:part name="listUrl" type="xs:string"/>
</wsdl:message>
<wsdl:message name="GetListItemsHttpGetOut">
  <wsdl:part name="Body" element="tns:ArrayOfFirstClassElement"/>
</wsdl:message>
<wsdl:message name="GetListItemsHttpPostIn">
  <wsdl:part name="listUrl" type="xs:string"/>
```


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```
</wsdl:message>
<wsdl:message name="GetListItemsHttpPostOut">
  <wsdl:part name="Body" element="tns:ArrayOfFirstClassElement"/>
</wsdl:message>
<wsdl:message name="GetListItemsSoapIn">
  <wsdl:part name="parameters" element="tns:GetListItems"/>
</wsdl:message>
<wsdl:message name="GetListItemsSoapOut">
  <wsdl:part name="parameters" element="tns:GetListItemsResponse"/>
</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetMdx"/>
</wsdl:message>
<wsdl:message name="GetMdxSoapOut">
  <wsdl:part name="parameters" element="tns:GetMdxResponse"/>
</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetParameterDisplayData"/>
</wsdl:message>
<wsdl:message name="GetParameterDisplayDataSoapOut">
  <wsdl:part name="parameters" element="tns:GetParameterDisplayDataResponse"/>
</wsdl:message>
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  <wsdl:part name="parameters" element="tns:GetPreviewDataSet"/>
</wsdl:message>
<wsdl:message name="GetPreviewDataSetSoapOut">
  <wsdl:part name="parameters" element="tns:GetPreviewDataSetResponse"/>
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</wsdl:message>
<wsdl:message name="GetQueryResultMembersSoapOut">
  <wsdl:part name="parameters" element="tns:GetQueryResultMembersResponse"/>
</wsdl:message>
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  <wsdl:part name="type" type="xs:string"/>
</wsdl:message>
<wsdl:message name="GetRegisteredCustomFCOsHttpGetOut">
  <wsdl:part name="Body" element="tns:ArrayOfCustomFCODefinition"/>
</wsdl:message>
<wsdl:message name="GetRegisteredCustomFCOsHttpPostIn">
  <wsdl:part name="type" type="xs:string"/>
</wsdl:message>
<wsdl:message name="GetRegisteredCustomFCOsHttpPostOut">
  <wsdl:part name="Body" element="tns:ArrayOfCustomFCODefinition"/>
</wsdl:message>
<wsdl:message name="GetRegisteredCustomFCOsSoapIn">
  <wsdl:part name="parameters" element="tns:GetRegisteredCustomFCOs"/>
</wsdl:message>
<wsdl:message name="GetRegisteredCustomFCOsSoapOut">
  <wsdl:part name="parameters" element="tns:GetRegisteredCustomFCOsResponse"/>
</wsdl:message>
<wsdl:message name="GetReportViewSoapIn">
  <wsdl:part name="parameters" element="tns:GetReportView"/>
</wsdl:message>
<wsdl:message name="GetReportViewSoapOut">
  <wsdl:part name="parameters" element="tns:GetReportViewResponse"/>
</wsdl:message>
<wsdl:message name="GetScorecardSoapIn">
  <wsdl:part name="parameters" element="tns:GetScorecard"/>
</wsdl:message>
<wsdl:message name="GetScorecardSoapOut">
  <wsdl:part name="parameters" element="tns:GetScorecardResponse"/>
</wsdl:message>
<wsdl:message name="ImportDashboardSoapIn">
  <wsdl:part name="parameters" element="tns:ImportDashboard"/>
</wsdl:message>
<wsdl:message name="ImportDashboardSoapOut">
  <wsdl:part name="parameters" element="tns:ImportDashboardResponse"/>
```


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```
    </wsdl:message>
    <wsdl:message name="QueryChildMembersByRangeFromDataSourceSoapIn">
      <wsdl:part name="parameters" element="tns:QueryChildMembersByRangeFromDataSource"/>
    </wsdl:message>
    <wsdl:message name="QueryChildMembersByRangeFromDataSourceSoapOut">
      <wsdl:part name="parameters"
  element="tns:QueryChildMembersByRangeFromDataSourceResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryChildMembersFromDataSourceSoapIn">
      <wsdl:part name="parameters" element="tns:QueryChildMembersFromDataSource"/>
    </wsdl:message>
    <wsdl:message name="QueryChildMembersFromDataSourceSoapOut">
      <wsdl:part name="parameters" element="tns:QueryChildMembersFromDataSourceResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryChildMembersSoapIn">
      <wsdl:part name="parameters" element="tns:QueryChildMembers"/>
    </wsdl:message>
    <wsdl:message name="QueryChildMembersSoapOut">
      <wsdl:part name="parameters" element="tns:QueryChildMembersResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryDimensionRootMembersFromDataSourceSoapIn">
      <wsdl:part name="parameters" element="tns:QueryDimensionRootMembersFromDataSource"/>
    </wsdl:message>
    <wsdl:message name="QueryDimensionRootMembersFromDataSourceSoapOut">
      <wsdl:part name="parameters"
  element="tns:QueryDimensionRootMembersFromDataSourceResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryDimensionRootMembersSoapIn">
      <wsdl:part name="parameters" element="tns:QueryDimensionRootMembers"/>
    </wsdl:message>
    <wsdl:message name="QueryDimensionRootMembersSoapOut">
      <wsdl:part name="parameters" element="tns:QueryDimensionRootMembersResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryNamedSetsFromDataSourceSoapIn">
      <wsdl:part name="parameters" element="tns:QueryNamedSetsFromDataSource"/>
    </wsdl:message>
    <wsdl:message name="QueryNamedSetsFromDataSourceSoapOut">
      <wsdl:part name="parameters" element="tns:QueryNamedSetsFromDataSourceResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryNamedSetsSoapIn">
      <wsdl:part name="parameters" element="tns:QueryNamedSets"/>
    </wsdl:message>
    <wsdl:message name="QueryNamedSetsSoapOut">
      <wsdl:part name="parameters" element="tns:QueryNamedSetsResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryRelatedMemberFromDataSourceSoapIn">
      <wsdl:part name="parameters" element="tns:QueryRelatedMemberFromDataSource"/>
    </wsdl:message>
    <wsdl:message name="QueryRelatedMemberFromDataSourceSoapOut">
      <wsdl:part name="parameters" element="tns:QueryRelatedMemberFromDataSourceResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryRelatedMemberSoapIn">
      <wsdl:part name="parameters" element="tns:QueryRelatedMember"/>
    </wsdl:message>
    <wsdl:message name="QueryRelatedMemberSoapOut">
      <wsdl:part name="parameters" element="tns:QueryRelatedMemberResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryTimeIntelligenceDirectSoapIn">
      <wsdl:part name="parameters" element="tns:QueryTimeIntelligenceDirect"/>
    </wsdl:message>
    <wsdl:message name="QueryTimeIntelligenceDirectSoapOut">
      <wsdl:part name="parameters" element="tns:QueryTimeIntelligenceDirectResponse"/>
    </wsdl:message>
    <wsdl:message name="QueryTimeIntelligenceSoapIn">
      <wsdl:part name="parameters" element="tns:QueryTimeIntelligence"/>
    </wsdl:message>
    <wsdl:message name="QueryTimeIntelligenceSoapOut">
      <wsdl:part name="parameters" element="tns:QueryTimeIntelligenceResponse"/>
    </wsdl:message>
```


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```
<wsdl:message name="QueryTransformMembersSoapIn">
  <wsdl:part name="parameters" element="tns:QueryTransformMembers"/>
</wsdl:message>
<wsdl:message name="QueryTransformMembersSoapOut">
  <wsdl:part name="parameters" element="tns:QueryTransformMembersResponse"/>
</wsdl:message>
<wsdl:message name="SaveTemporaryAnalyticReportSoapIn">
  <wsdl:part name="parameters" element="tns:SaveTemporaryAnalyticReport"/>
</wsdl:message>
<wsdl:message name="SaveTemporaryAnalyticReportSoapOut">
  <wsdl:part name="parameters" element="tns:SaveTemporaryAnalyticReportResponse"/>
</wsdl:message>
<wsdl:message name="TestConnectionSoapIn">
  <wsdl:part name="parameters" element="tns:TestConnection"/>
</wsdl:message>
<wsdl:message name="TestConnectionSoapOut">
  <wsdl:part name="parameters" element="tns:TestConnectionResponse"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationByOwnerHttpGetIn">
  <wsdl:part name="Owner" type="xs:string"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationByOwnerHttpGetOut"/>
<wsdl:message name="TrimAnnotationByOwnerHttpPostIn">
  <wsdl:part name="Owner" type="xs:string"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationByOwnerHttpPostOut"/>
<wsdl:message name="TrimAnnotationByOwnerSoapIn">
  <wsdl:part name="parameters" element="tns:TrimAnnotationByOwner"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationByOwnerSoapOut">
  <wsdl:part name="parameters" element="tns:TrimAnnotationByOwnerResponse"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationByScorecardLocationSoapIn">
  <wsdl:part name="parameters" element="tns:TrimAnnotationByScorecardLocation"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationByScorecardLocationSoapOut">
  <wsdl:part name="parameters" element="tns:TrimAnnotationByScorecardLocationResponse"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationUntouchedSinceHttpGetIn">
  <wsdl:part name="untouchedSince" type="xs:string"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationUntouchedSinceHttpGetOut"/>
<wsdl:message name="TrimAnnotationUntouchedSinceHttpPostIn">
  <wsdl:part name="untouchedSince" type="xs:string"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationUntouchedSinceHttpPostOut"/>
<wsdl:message name="TrimAnnotationUntouchedSinceSoapIn">
  <wsdl:part name="parameters" element="tns:TrimAnnotationUntouchedSince"/>
</wsdl:message>
<wsdl:message name="TrimAnnotationUntouchedSinceSoapOut">
  <wsdl:part name="parameters" element="tns:TrimAnnotationUntouchedSinceResponse"/>
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<wsdl:message name="UpdateAnnotationSoapIn">
  <wsdl:part name="parameters" element="tns:UpdateAnnotation"/>
</wsdl:message>
<wsdl:message name="UpdateAnnotationSoapOut">
  <wsdl:part name="parameters" element="tns:UpdateAnnotationResponse"/>
</wsdl:message>
<wsdl:message name="UpdateDashboardSoapIn">
  <wsdl:part name="parameters" element="tns:UpdateDashboard"/>
</wsdl:message>
<wsdl:message name="UpdateDashboardSoapOut">
  <wsdl:part name="parameters" element="tns:UpdateDashboardResponse"/>
</wsdl:message>
<wsdl:message name="UpdateDataSourceSoapIn">
  <wsdl:part name="parameters" element="tns:UpdateDataSource"/>
</wsdl:message>
<wsdl:message name="UpdateDataSourceSoapOut">
  <wsdl:part name="parameters" element="tns:UpdateDataSourceResponse"/>
```


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```
  </wsdl:message>
  <wsdl:message name="UpdateFilterSoapIn">
    <wsdl:part name="parameters" element="tns:UpdateFilter"/>
  </wsdl:message>
  <wsdl:message name="UpdateFilterSoapOut">
    <wsdl:part name="parameters" element="tns:UpdateFilterResponse"/>
  </wsdl:message>
  <wsdl:message name="UpdateIndicatorSoapIn">
    <wsdl:part name="parameters" element="tns:UpdateIndicator"/>
  </wsdl:message>
  <wsdl:message name="UpdateIndicatorSoapOut">
    <wsdl:part name="parameters" element="tns:UpdateIndicatorResponse"/>
  </wsdl:message>
  <wsdl:message name="UpdateKpiSoapIn">
    <wsdl:part name="parameters" element="tns:UpdateKpi"/>
  </wsdl:message>
  <wsdl:message name="UpdateKpiSoapOut">
    <wsdl:part name="parameters" element="tns:UpdateKpiResponse"/>
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  <wsdl:message name="UpdateReportViewSoapIn">
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  </wsdl:message>
  <wsdl:message name="UpdateReportViewSoapOut">
    <wsdl:part name="parameters" element="tns:UpdateReportViewResponse"/>
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  <wsdl:message name="UpdateScorecardSoapIn">
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  </wsdl:message>
  <wsdl:message name="UpdateScorecardSoapOut">
    <wsdl:part name="parameters" element="tns:UpdateScorecardResponse"/>
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  <wsdl:message name="ValidateKpiSoapIn">
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  <wsdl:message name="ValidateKpiSoapOut">
    <wsdl:part name="parameters" element="tns:ValidateKpiResponse"/>
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    <wsdl:part name="parameters" element="tns:ValidateScorecard"/>
  </wsdl:message>
  <wsdl:message name="ValidateScorecardSoapOut">
    <wsdl:part name="parameters" element="tns:ValidateScorecardResponse"/>
  </wsdl:message>
  <wsdl:message name="ValidateSiteCollectionSoapIn">
    <wsdl:part name="parameters" element="tns:ValidateSiteCollection"/>
  </wsdl:message>
  <wsdl:message name="ValidateSiteCollectionSoapOut">
    <wsdl:part name="parameters" element="tns:ValidateSiteCollectionResponse"/>
  </wsdl:message>
</wsdl:definitions>
```


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7 Appendix B: Full XML Schema

Schema name	Prefix	Section
http://schemas.microsoft.com/performancepoint/2007/03/query	query	7.2
http://www.microsoft.com/performancepoint/scorecards/Analytics	Unassigned	7.3
http://performancepoint.microsoft.com/OLAPQueryData	qdata	7.1

For ease of implementation, the following sections provide the full XML schema for this protocol.

7.1 http://performancepoint.microsoft.com/OLAPQueryData Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:tns="http://www.microsoft.com/performancepoint/scorecards"
attributeFormDefault="unqualified" elementFormDefault="qualified"
targetNamespace="http://performancepoint.microsoft.com/OLAPQueryData"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import namespace="http://www.microsoft.com/performancepoint/scorecards"/>
  <xs:complexType name="OLAPQueryData">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="Parameters" type="tns:ArrayOfParameter"/>
      <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
      <xs:element minOccurs="0" maxOccurs="1" name="MDX" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

7.2 http://schemas.microsoft.com/performancepoint/2007/03/query Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:tns="http://www.microsoft.com/performancepoint/scorecards"
attributeFormDefault="unqualified" elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/performancepoint/2007/03/query"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import namespace="http://www.microsoft.com/performancepoint/scorecards"/>
  <xs:complexType name="QueryState">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="Axes" type="tns:ArrayOfAxis"/>
      <xs:element minOccurs="1" maxOccurs="1" name="IsEnabled" type="xs:boolean"/>
      <xs:element minOccurs="1" maxOccurs="1" name="UnknownFilterParameter"
type="xs:boolean"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ShowDatasourceFormatting"
type="xs:boolean"/>
      <xs:element minOccurs="0" maxOccurs="1" name="DataSourceLocation"
type="tns:RepositoryLocation"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

7.3 http://www.microsoft.com/performancepoint/scorecards/Analytics Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:tns="http://www.microsoft.com/performancepoint/scorecards"
attributeFormDefault="unqualified" elementFormDefault="qualified"
targetNamespace="http://www.microsoft.com/performancepoint/scorecards/Analytics"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import namespace="http://www.microsoft.com/performancepoint/scorecards"/>
```


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```
  <xs:complexType name="Tuple">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="memberDictionary"
type="tns:SerializableDictionary"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```


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8 Appendix C: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

- PerformancePoint Services in Microsoft SharePoint Server 2010
- Microsoft SharePoint Server 2010
- Microsoft SharePoint Server 2013
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2019

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

<1> Section 2.2.2.1.3: The content store refers to a SharePoint Server 2010 list.

<2> Section 2.2.2.1.3: Data sources are stored in **document libraries** in SharePoint Server 2010.

<3> Section 2.2.2.1.3: The content store refers to a SharePoint Server 2010 list.

<4> Section 2.2.2.1.3: The content store refers to a SharePoint Server 2010 list.

<5> Section 2.2.2.1.3: The content store refers to a SharePoint Server 2010 list.

<6> Section 2.2.2.1.3: The content store refers to a SharePoint Server 2010 list.

<7> Section 2.2.2.1.3: The content store refers to a SharePoint Server 2010 list.

<8> Section 2.2.4: This type is available only in SharePoint Server 2013.

<9> Section 2.2.4: This type is available only in SharePoint Server 2013.

<10> Section 2.2.4: This type is available only in SharePoint Server 2013.

<11> Section 2.2.4.48: This type is available only in SharePoint Server 2013.

<12> Section 2.2.4.75: This type is available only in SharePoint Server 2013.

<13> Section 2.2.4.83: The values for **UnderlyingElementTypeName** for the built-in element types in PerformancePoint Services 2010 are:

Type	Value
Scorecard	Microsoft.PerformancePoint.Scorecards.Scorecard, Microsoft.PerformancePoint.Scorecards.Client, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce111e9429c
ReportView	Microsoft.PerformancePoint.Scorecards.ReportView, Microsoft.PerformancePoint.Scorecards.Client, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce111e9429c

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Type	Value
1. Filter	Microsoft.PerformancePoint.Scorecards.Filter, Microsoft.PerformancePoint.Scorecards.Client, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce111e9429c

<14> Section 2.2.4.85: The list data source refers to a SharePoint Server 2010 list.

<15> Section 2.2.4.99: For SharePoint Server 2010, the content store is a SharePoint list.

<16> Section 2.2.4.123: The registered **transforms** can be found in the web.config file under the CustomViewTransforms section. The content for the PropertyBag of each transform is determined by what is chosen to be passed in through the parameter.

<17> Section 2.2.4.167: In PerformancePoint Services 2010, the identifier is generated by obtaining the **UTF-8** formatted bytes of the indicator's relative **URL**, computing an **MD5** hash of those bytes and formatting the 16 byte hash to a **GUID** value format.

<18> Section 2.2.4.180: This type is available only in SharePoint Server 2013.

<19> Section 2.2.5.6: Beta2 or RTM refers to PerformancePoint Services 2010 Beta2 or PerformancePoint Services in Microsoft SharePoint Server 2010.

<20> Section 2.2.5.6: Beta1 refers to PerformancePoint Services 2010 Beta1.

<21> Section 2.2.5.6: Microsoft Office PerformancePoint Server 2007

<22> Section 3.1.2: In PerformancePoint Services 2010, the default query timeout is 300 seconds.

<23> Section 3.1.4: This operation is available only in SharePoint Server 2013.

<24> Section 3.1.4: This operation is available only in SharePoint Server 2013.

<25> Section 3.1.4.16: The content store refers to a SharePoint Server 2010 list.

<26> Section 3.1.4.17: This operation is available only in SharePoint Server 2013.

<27> Section 3.1.4.21: PerformancePoint Services 2010 returns a GetAnalyticReportViewResponse (see section 3.1.4.44.2.2) containing a null value instead of a **report view** for failures unrelated to security restrictions.

<28> Section 3.1.4.33: PerformancePoint Services 2010 returns an empty **GetDashboardResponse** (see section 3.1.4.33.2.2) for failures unrelated to security restrictions.

<29> Section 3.1.4.35: PerformancePoint Services 2010 returns a **GetDataSourceResponse** (section 3.1.4.35.2.2) containing a null value instead of a **data source (1)** for failures unrelated to security restrictions.

<30> Section 3.1.4.36: PerformancePoint Services 2010 returns a **GetDependentElementResponse** (see section 3.1.4.35.2.2) containing an **DependentElementInfo** that contains a **FirstClassElement** collection (see section 2.2.4.34) with null elements for failures unrelated to security restrictions.

<31> Section 3.1.4.39: PerformancePoint Services 2010 returns an empty **GetFilterResponse** element (section 3.1.4.39.2.2) for failures unrelated to security restrictions.

<32> Section 3.1.4.40: PerformancePoint Services 2010 returns a **GetIndicatorResponse** element (section 3.1.4.40.2.2) containing a null value instead of an **Indicator** complex type (section 2.2.4.125) for failures unrelated to security restrictions.

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<33> Section 3.1.4.41: PerformancePoint Services 2010 returns a **GetKpiResponse** (see section 3.1.4.44.2.2) containing a null value instead of a **Kpi** for failures unrelated to security restrictions.

<34> Section 3.1.4.44: PerformancePoint Services 2010 returns a **GetListItemsResponse** (see section 3.1.4.44.2.2) containing an **ArrayOfFirstClassElements** (see section 2.2.4.34) with null elements for failures unrelated to security restrictions.

<35> Section 3.1.4.45: PerformancePoint Services 2010 returns a **GetMdxResponse** with an empty **GetMdxResult** for failures unrelated to security restrictions.

<36> Section 3.1.4.46: In PerformancePoint Services 2010, **GetParameterDisplayData** receives the **GridViewData** (section 2.2.4.121) as an untyped object referenced by the **customData** parameter on the **GetParameterDisplayDataIn** message (section 3.1.4.46.1.1).

<37> Section 3.1.4.47.2.1: PerformancePoint Services 2010 supports preview data sets for the following data source types: **ExcelWorkbook**, **ExcelServicesWorkbook**, **SqlTabularDataSource**, and **SPListDataSource**.

<38> Section 3.1.4.50: PerformancePoint Services 2010 returns a GetReportViewResponse (see section 3.1.4.44.2.2) containing a null value instead of a report view for failures unrelated to security restrictions.

<39> Section 3.1.4.51: PerformancePoint Services 2010 returns an empty **GetScorecardResponse** (see section 3.1.4.51.2.2) for failures unrelated to security restrictions.

<40> Section 3.1.4.52: This operation is available only in SharePoint Server 2013.

<41> Section 3.1.4.58: PerformancePoint Services 2010 returns a **QueryNamedSetsResponse** (section 3.1.4.58.2.2) containing a **null** value instead of **named sets** for failures unrelated to security restrictions.

<42> Section 3.1.4.59: PerformancePoint Services 2010 returns a **QueryNamedSetsFromDataSourceResponse** (see section 3.1.4.59.1.2) containing an empty collection of named sets if null is passed in for the data source (1).

<43> Section 3.1.4.60: PerformancePoint Services 2010 returns a QueryRelatedMemberResponse (see section 3.1.4.44.2.2) containing null for failures unrelated to security restrictions.

<44> Section 3.1.4.61: PerformancePoint Services 2010 returns a **QueryRelatedMemberFromDataSourceResponse** element (section 3.1.4.61.2.2) containing null, if null is passed in for the data source (1).

<45> Section 3.1.4.62: PerformancePoint Services 2010 returns a **QueryTimeIntelligenceResponse** (see section 3.1.4.44.2.2) containing an Unknown error if an invalid **RepositoryLocation** (see section 2.2.4.161) is passed in.

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9 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements.
- A document revision that captures changes to protocol functionality.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

The changes made to this document are listed in the following table. For more information, please contact dochelp@microsoft.com.

Section	Description	Revision class
8 Appendix C: Product Behavior	Updated list of supported products.	Major

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